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of Transportation

**National Highway  
Traffic Safety  
Administration**

400 Seventh Street, S.W.  
Washington, D.C. 20590

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Indiana University

Indiana

ON-SITE AIR BAG INVESTIGATION

CASE NO. - 93-07

FLEET - PRIVATE VEHICLE

LOCATION - ILLINOIS

ACCIDENT DATE - 1993

Submitted By:

Associate Scientist

, 1993

Contract Number: DTNH22-93-A-07485

Prepared for:

U.S. Department of Transportation  
National Highway Traffic Safety Administration  
National Center for Statistics and Analysis  
Washington, D.C. 20590

## **DISCLAIMERS**

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The crash investigation process is an inexact science which requires that physical evidence such as skid marks, vehicular damage measurements, and occupant contact points be coupled with the investigator's expert knowledge and experience of vehicle dynamics and occupant kinematics in order to determine the precrash, crash, and post-crash movements of involved vehicles and occupants.

Because each crash is a unique sequence of events, generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicle(s) or their safety systems.

1. Report No. TRC/IU Case No. 93-07		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle On-Site Air Bag Investigation Fleet - Private Vehicle Location - ██████████, Illinois				5. Report Date ██████████ 1993	
				6. Performing Organization Code	
				8. Performing Organization Report No. TRC/IU 93-07, Task 0103	
7. Author(s) ████████████████████				10. Work Unit No. (TRAIS)	
9. Performing Organization Name and Address Indiana University Transportation Research Center ████████████████████ ████████████████████				11. Contract or Grant No. DTNH22-93-A-07485	
				13. Type of Report and Period Covered ██████████ 1993	
12. Sponsoring Agency Name and Address U.S. Department of Transportation (NRD-32) National Highway Traffic Safety Administration National Center for Statistics and Analysis Washington, D.C. 20590				14. Sponsoring Agency Code	
15. Supplementary Notes  On-Site air bag investigation involving a 1990 Dodge Daytona					
16. Abstract  This report covers an on-site investigation of an air bag nondeployment crash that involved a 1990 Dodge Daytona and a 1987 Pontiac Fiero. The Daytona was traveling north in the northbound lane of a two-lane, undivided, county roadway. The Fiero was traveling west in the westbound lane of a two-lane, undivided, county roadway. The case vehicle impacted the Fiero and subsequently rolled over. The Daytona was equipped with a driver supplemental restraint system (air bag) which did not deploy as a result of the right front impact. Because the right front impact generated, primarily, a lateral force to the Daytona and because the air bag system is not designed to deploy as the result of a lateral force, the Daytona, therefore, did not sustain a longitudinal deceleration of sufficient magnitude to deploy the air bag. The driver of the vehicle (28 year-old female) was not wearing the available active three-point lap and shoulder belt. The driver was ejected out the backlight and was found just west of the Daytona's final rest position. She sustained fatal injuries from impacting the right corner of the cargo area, including multiple lower left rib fractures and a massive hemothorax (i.e., estimated at between 2000-3000 ccs) which resulted in cardio-pulmonary arrest from exsanguination. According to the Police Accident Report, the driver of the Fiero was listed as restrained and sustained "A" (incapacitating) injuries.					
17. Key Words Motor Vehicle Traffic Accident Air Bag Nondeployment Injury Severity			18. Distribution Statement General Public		
19. Security Classif. (of this report) Unclassified		20. Security Classif. (of this page) Unclassified		21. No. of Pages 87	22. Price



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# TRC/IU ON-SITE AIR BAG INVESTIGATION

TRC/IU CASE NO. - 93-07

FLEET - PRIVATE VEHICLE  
LOCATION - [REDACTED] ILLINOIS

## Summary

This report concerns a motor vehicle crash involving an air bag equipped 1990 Dodge Daytona and a 1987 Pontiac Fiero occurring on [REDACTED] 1993 at [REDACTED] a.m., near [REDACTED] Illinois on a county road. This investigation was undertaken in response to a report to the Office of Special Crash Investigations of the National Highway Traffic Safety Administration (NHTSA), National Center for Statistics and Analysis (NCSA), from the [REDACTED] State Police. This crash was reported to NHTSA as an air bag nondeployment resulting in fatal injuries to the driver of the Dodge Daytona.

The Daytona was traveling north on a two-lane, undivided, county roadway when it impacted the Fiero which was traveling west on a two-lane, undivided, county roadway. The crash occurred in the intersection of the two roadways. The Daytona rotated approximately 180 degrees counterclockwise after its initial impact. During the rotation the case vehicle departed the northwest edge of the intersection and impacted the north slope of the ditch with the right quarter panel. After impacting the ditch the Daytona rotated clockwise and rolled over two quarter turns. The Daytona came to rest facing north on its top in the ditch northwest of the intersection. The Fiero continued in a northwesterly direction after its initial impact and departed the northwest edge of the intersection. As the Fiero traveled along the south slope of the ditch, the left front wheel dug into the ditch causing the Fiero to rotate approximately 90 degrees counterclockwise and impact the right rear wheel and quarter panel into the north slope of the ditch. Exactly what happened next is not clear; however, the preponderance of the evidence indicates that this impact caused the Fiero to roll over four quarter turns while continuing to rotate approximately an additional 90 degrees counterclockwise. During the rollover, the Fiero impacted a small tree along the north slope of the ditch. The Fiero came to rest facing east on its wheels in the ditch northwest of the intersection.

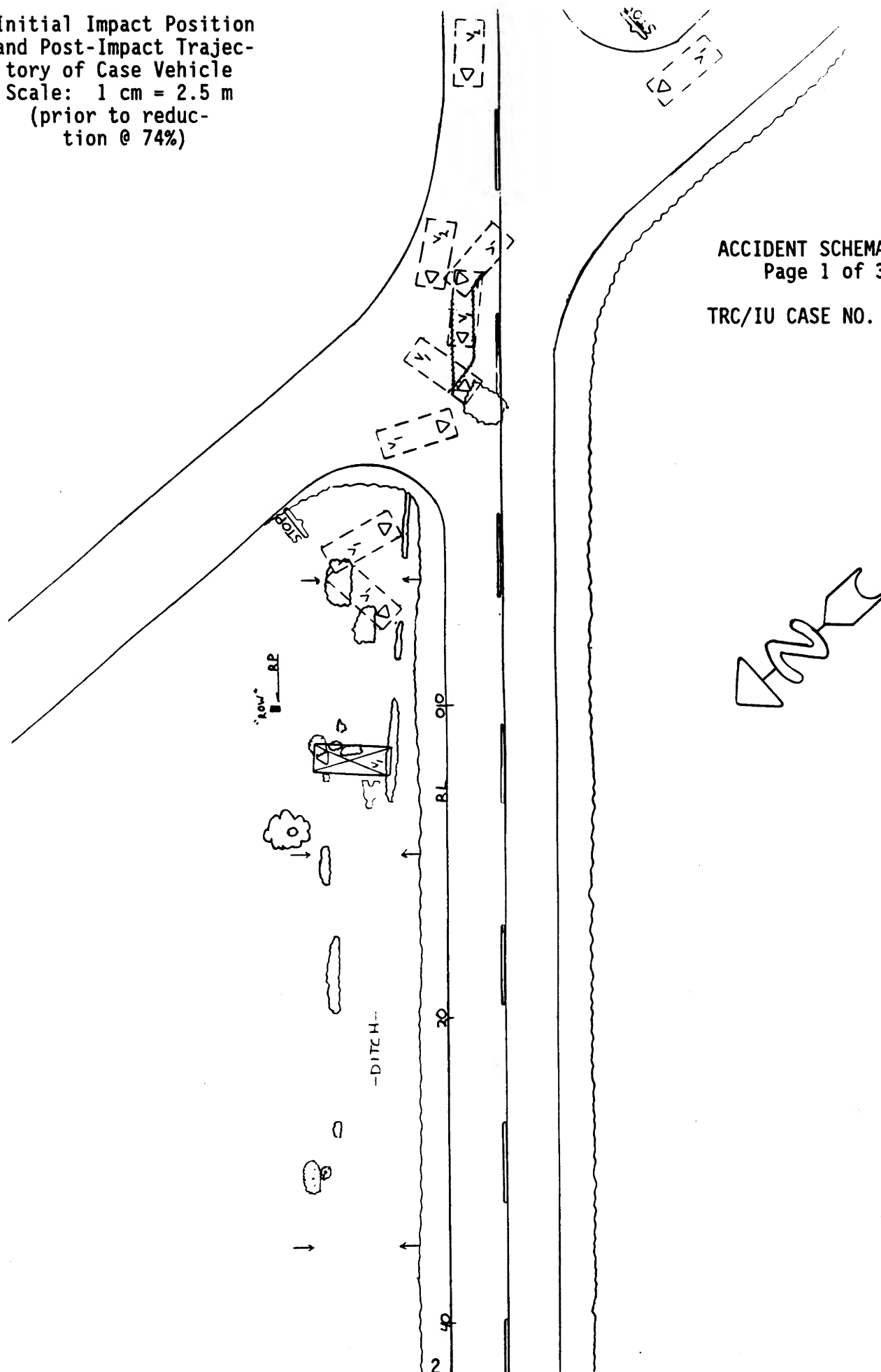
The right front of the Daytona impacted the left front of the Fiero. CDCs were determined to be: 04-RYEW-3, 00-RBEW-2, and 00-TDD0-3 for the Daytona and 11-LDAW-3, 03-RBWN-2, and 00-TBDO-6 for the Fiero. The CRASHPC reconstruction program could not be used on any of the impacts to the Daytona or the Fiero.

The 1990 Dodge Daytona was equipped with a driver supplemental restraint system (air bag) which did not deploy as a result of the right front impact. The driver of the vehicle (28 year-old female) was not wearing the available, active, three-point, lap and shoulder belt. The driver was ejected out the backlight and was found just west of the Daytona's final rest position. She sustained fatal injuries including multiple lower left rib fractures and a massive hemothorax (i.e., estimated at between 2000-3000 ccs) which resulted in cardio-pulmonary arrest from exsanguination. The driver of the Daytona was listed on the Police Accident Report as sustaining a "K" (fatal) injury as a result of her crash. The driver (33 year-old male) of the Fiero was listed on the Police Accident Report as restrained and sustaining an "A" (incapacitating) injury.

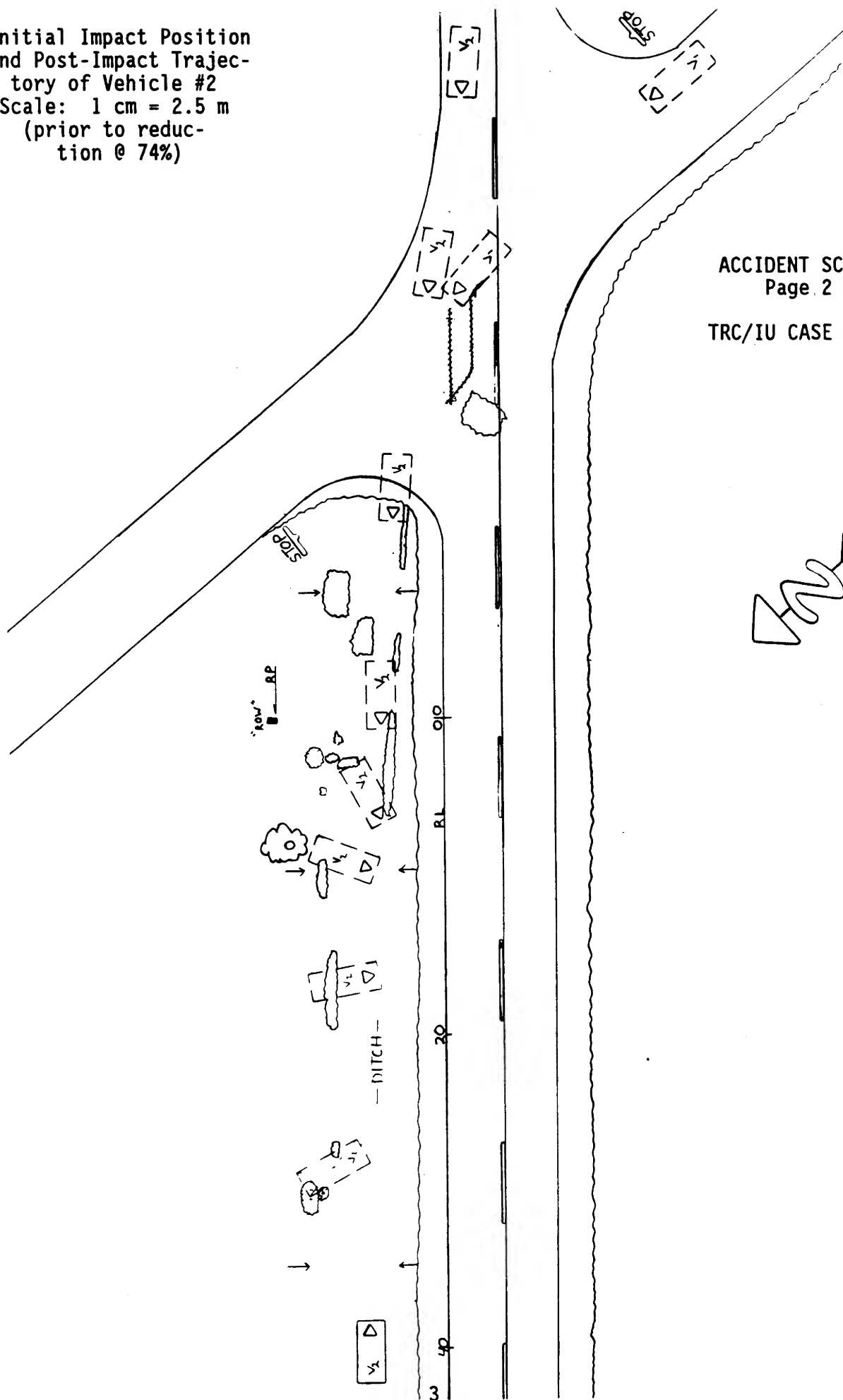
Initial Impact Position  
and Post-Impact Trajectory  
of Case Vehicle  
Scale: 1 cm = 2.5 m  
(prior to reduction @ 74%)

ACCIDENT SCHEMATIC  
Page 1 of 3

TRC/IU CASE NO. 93-07



Initial Impact Position  
and Post-Impact Trajec-  
tory of Vehicle #2  
Scale: 1 cm = 2.5 m  
(prior to reduc-  
tion @ 74%)



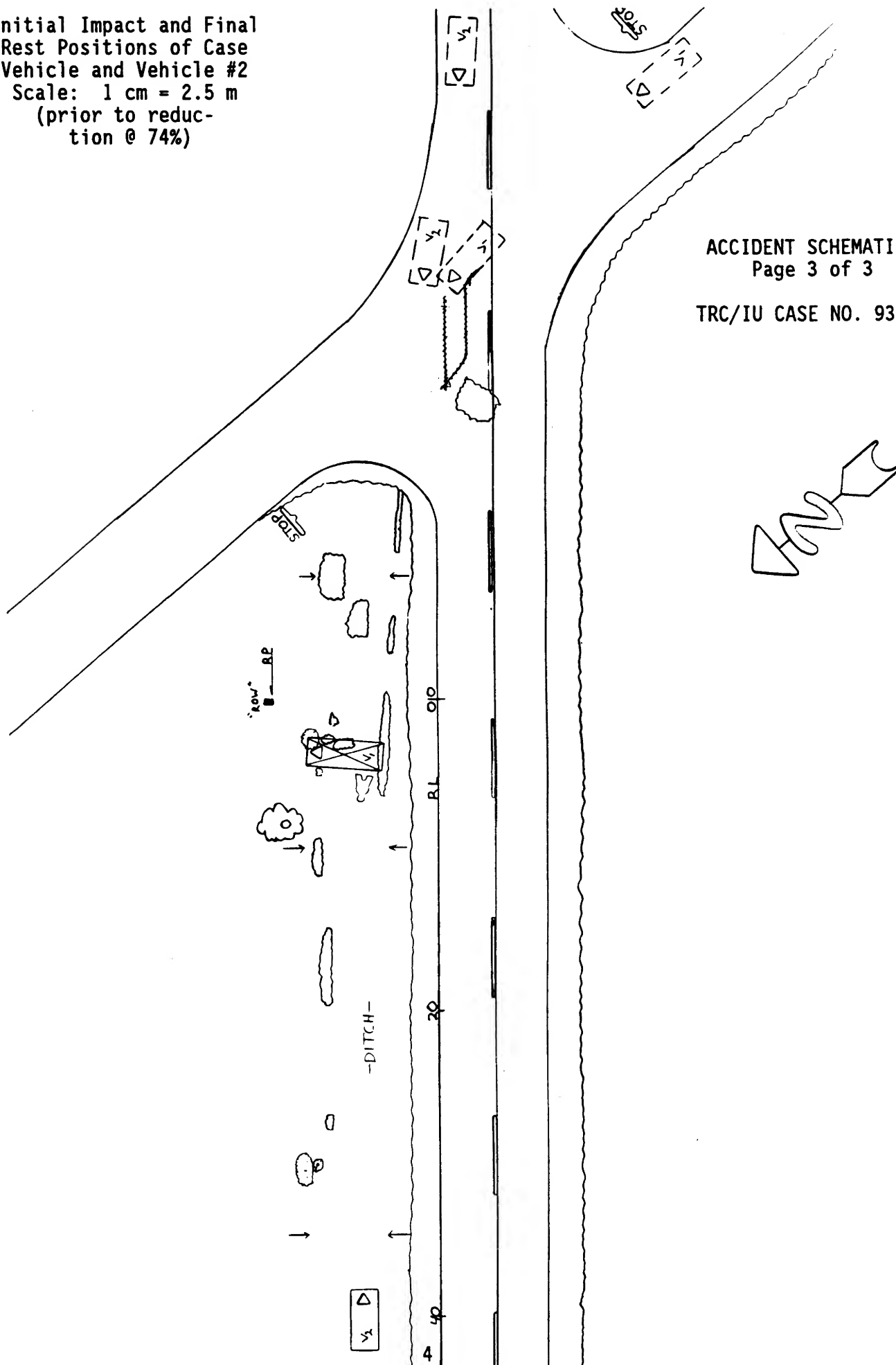
ACCIDENT SCHEMATIC  
Page 2 of 3

TRC/IU CASE NO. 93-07

Initial Impact and Final  
Rest Positions of Case  
Vehicle and Vehicle #2  
Scale: 1 cm = 2.5 m  
(prior to reduc-  
tion @ 74%)

ACCIDENT SCHEMATIC  
Page 3 of 3

TRC/IU CASE NO. 93-07



# TRC/IU ON-SITE AIR BAG INVESTIGATION

TRC/IU CASE NO. - 93-07

FLEET - PRIVATE VEHICLE  
LOCATION - [REDACTED] ILLINOIS

## ACCIDENT DATA

Location/Street: County Road  
City/Township: [REDACTED] County, near [REDACTED], Illinois  
Area/Type: Rural/Agricultural  
Accident Date/Time: [REDACTED] 1993 @ [REDACTED] a.m.  
Investigating Police Agency: [REDACTED] State Police  
Accident Type: Car / Car - acute angle  
Occupant Injury Severity  
(air bag vehicle): Multiple Left Rib Fractures with  
massive (2000-3000 ccs) hemothorax  
(AIS-4)

## AMBIENT CONDITIONS

Light conditions: Darkness  
Weather Condition: Clear  
Precipitation: None  
Road Surface: Dry

## ROADWAY

	<u>Case Vehicle</u>	<u>Vehicle #2</u>
Location:	County road	County road
Number of Travel Lanes:	2-lanes, undivided	2-lanes, undivided
Width:	3.0 meters (9.8 feet)	3.6 meters (11.8 feet)
Surface Type:	Asphalt base with gravel	Asphalt
Median:	None	None
Shoulders:	Grass	Grass
Vertical alignment:	Level	1.6% negative to west

**ROADWAY (CONT'D.)**

	<u>Case Vehicle</u>	<u>Vehicle #2</u>
Horizontal alignment:	Straight	Straight
Estimated Coefficient of Friction (in area of initial impact)	.68 estimated	.68 estimated
Traffic Density:	Light	Light

**TRAFFIC CONTROLS**

	<u>Case Vehicle</u>	<u>Vehicle #2</u>
Signals:	None	None
Signs:	Stop sign	None
Markings:	None	Broken yellow center line
Speed Limit:	89 k.p.h (55 m.p.h.)	89 k.p.h. (55 m.p.h.)

**VEHICLES**

	<u>Case Vehicle</u>	<u>Vehicle #2</u>
Year:	1990	1987
Make:	Dodge	Pontiac
Model:	Daytona	Fiero GT Coupe
Body Type:	2-door hatchback	2-door
V.I.N.:	1B3XG44K2LG-----	1G20G1198HP-----
Color:	Blue	Copper
Mileage:	115,120 km (71,534 mi)	Unknown
Engine:	2.5 liter EFI	2.8 liter V-6 FI
Transmission:	Automatic	Unknown
Steering:	Power-assisted, rack-and-pinion	Unknown
Brakes:	Power-assisted, front disk, rear drum	Unknown
Padding:	Instrument panel, steering wheel, doors	Unknown

**VEHICLES (CONT'D.)**

	<u>Case Vehicle</u>	<u>Vehicle #2</u>
Active Restraints:	3-point lap and shoulder belts at front and rear outboard seating positions, no rear center seating position	3-point lap and shoulder belts at front outboard seating positions
Passive Restraints:	Factory installed driver supplemental restraint system (air bag)	None
Defects:	None	Unknown
Fleet:	Private vehicle	Private vehicle
Tow status:	Towed due to damage	Towed due to damage

**VEHICLE DAMAGE****Exterior****1st Nondeployment Impact**

	<u>Case Vehicle</u>	<u>Vehicle #2</u>
Event number:	1	1
Object Struck:	Vehicle #2	Case Vehicle
Damage location		
Damaged Plane:	Right side	Left side
Vertical Location		
On Plane:	Mid-door level	Mid-door level
Direct Begins:	176 cm (69.3 in) forward of right rear axle	Unknown
Length Direct:	157 cm (61.8 in)	Unknown
Field L:	80 cm (31.5 in)	Unknown
C1:	0 cm ( 0.0 in)	Unknown
C2:	5 cm ( 1.8 in)	Unknown
C3:	10 cm ( 3.9 in)	Unknown
C4:	11 cm ( 4.3 in)	Unknown
C5:	18 cm ( 7.1 in)	Unknown
C6:	27 cm (10.6 in)	Unknown
D:	+130 cm (51.2 in)	Unknown
Maximum Crush:	27 cm (10.6 in)	Unknown
Location:	C6	
CDC*:	04-RYEW-3	11-LDAW-3

\* See discussion under Vehicle Velocity Estimates below (i.e., page 10).



VEHICLE DAMAGE (CONT'D.)Exterior (Cont'd.)Case VehicleVehicle #21st Nondeployment Impact (Cont'd.)

Damaged Components:

Right front fender,  
door, frame, and  
bumperLeft front: fender,  
wheel, door, sill, and  
A-pillar; and roof2nd Nondeployment Impact

Event number:

2

3

Object Struck:

Ditch

Ditch

Damage location

Damaged Plane:

Right side

Right side

Vertical Location

On Plane:

Sill level

Right rear wheel

Length Direct:

118 cm (46.5 in)

Unknown

Direct Begins:

91 cm (35.8 in) rear  
of right rear axle

Unknown

Field L:

118 cm (46.5 in)

Unknown

C1:

0 cm ( 0.0 in)

Unknown

C2:

9 cm ( 3.5 in)

Unknown

C3:

6 cm ( 2.4 in)

Unknown

C4:

0 cm ( 0.0 in)

Unknown

C5:

0 cm ( 0.0 in)

Unknown

C6:

0 cm ( 0.0 in)

Unknown

D:

-154 cm (60.6 in)

Unknown

Maximum Crush:

9 cm ( 3.5 in)

Unknown

Location:

C2

Unknown

CDC:

00-RBEW-2

03-RBWN-2

Damaged Components:

Right quarter panel,  
rear bumper, and right  
rear wheel

Right rear wheel

3rd Nondeployment Impact

Event number:

4

5

Object Struck:

Ground

Ground

Damage location

Damaged Plane:

Top

Top

Vertical Location

On Plane:

Distributed

Rear of B-pillar

Length Direct:

Distributed

Unknown

Direct Begins:

Not applicable

Not applicable

Field L:

Not applicable

Not applicable

**VEHICLE DAMAGE (CONT'D.)**

<u>Exterior (Cont'd.)</u>	<u>Case Vehicle</u>	<u>Vehicle #2</u>
<u>3rd Nondeployment Impact (Cont'd.)</u>		
C1:	Not applicable	Not applicable
C2:	Not applicable	Not applicable
C3:	Not applicable	Not applicable
C4:	Not applicable	Not applicable
C5:	Not applicable	Not applicable
C6:	Not applicable	Not applicable
D:	Not applicable	Not applicable
Maximum Crush:	Not applicable	Not applicable
Location:	Not applicable	Not applicable
CDC:	00-TDD0-3	00-TBD0-6
Damaged Components:	Windshield and top	Right quarter panel and top of back panel

**Interior**

Damaged Components:	Unknown: driver's seat, roof liner, and a section of the center instrument panel was removed	Unknown
Other Evidence of Occupant Contact:	Center portion of right and left rear bucket seats and rear right corner of cargo compartment	Unknown
Manual Restraint System Failures:	None	Unknown
Seat Performance Failures:	Left rear seat outer hinge pin separated from hinge	Unknown

**Repair**

Cost Estimate:	Totalled	Totalled
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**VEHICLE VELOCITY ESTIMATES**

<u>Highest Delta "V"</u>	<u>Case Vehicle</u>	<u>Vehicle #2</u>
Reconstruction Program:	None	None

VEHICLE VELOCITY ESTIMATES (CONT'D.)

<u>Highest Delta "V"</u>	<u>Case Vehicle</u>	<u>Vehicle #2</u>
Program Algorithm:	Not applicable	Not applicable
Travel Speed:	Unknown	Unknown
Total Delta "V":	Unknown	Unknown
Longitudinal Delta "V"*:	Unknown	Unknown
Lateral Delta "V":	Unknown	Unknown

- \* There was insufficient data to run the CRASH3PC program; however, a vector analysis program was used to iteratively determine the theoretical Direction of Principle Force that would have resulted to both the case vehicle and vehicle #2 given reasonable upper and lower assumptions regarding each vehicle's pre-impact velocity. These vector analysis results, presented in Appendix B, in combination with the damage to each vehicle and the initial post-impact trajectories of the vehicles are the basis for our findings pertaining to (1) each vehicle's Direction of Principle Force and (2) that the case vehicle's air bag did not deploy because the case vehicle sustained primarily a lateral force and, therefore, did not sustain a longitudinal deceleration of sufficient magnitude to have caused the air bag's deployment.

COLLISION SEQUENCE

Pre-Crash: The case vehicle (Daytona) was traveling north in the northbound lane of a two-lane, undivided, county roadway and was attempting to continue in its direction of travel. Vehicle #2 (Fiero) was traveling west in the westbound lane of a two-lane, undivided, county roadway and was also attempting to continue in its direction of travel. The direct damage residing primarily on the right front fender of the Daytona, indicates the driver of the case vehicle steered to the left to avoid the collision as her vehicle entered the intersection. The on-scene police photographs showed no pre-impact skid marks (see Photograph #01) in the case vehicle's path of travel. *(Thus, if any pre-impact braking occurred, then it was insufficient to produce lock-wheel skid marks.)* The case vehicle appears to have been angled approximately five degrees to the left from its original path of travel just prior to impact. The absence of direct contact damage to the front of vehicle #2 (see cell C4 in Photograph #08), the lack of visible pre-impact skidmarks in the westbound lane in the on-scene police photographs (see Photograph #02), and the left side tire divots found on the northwest shoulder and in the ditch indicates that the driver of vehicle #2 steered right as his vehicle entered the intersection. Vehicle #2 appears to have been angled approximately ten degrees to the right from its original path of travel just prior to impact. The crash occurred in the intersection of the two roadways.

Crash: The right front of the case vehicle impacted the left front of vehicle #2. The case vehicle's driver side supplemental restraint system (air bag) did not deploy. The post-impact tire scuff evi-

**COLLISION SEQUENCE (CONT'D.)**

Crash (Cont'd.) dence visible in the on-scene police photographs (see Photographs #02 and #05), the ground divots in the ditch at the scene (see cells E5 and I5 in Photograph #09), and the damage on the case vehicle's right quarter panel indicates that the case vehicle rotated approximately 180 degrees counterclockwise after its initial impact. During the rotation the case vehicle departed the northwest edge of the intersection and impacted the north slope of the ditch with the right rear wheel and quarter panel (see Photograph #30). This impact was of sufficient severity to displace the rear axle to the left and push the right rear wheel inward (see Photograph #11). After impacting the ditch the case vehicle began rotating clockwise and the right front wheel gouged the bottom of the ditch (see cell E5 Photograph #09) loading the right front wheel with mud (see cells D4 and E4 in Photograph #14). The case vehicle rolled over two quarter turns with the right side leading and came to rest facing north on its top in the ditch northwest of the intersection. The evidence in the on-scene police photographs (see Photographs #07 and #21) and the ground divots at the scene indicates that vehicle #2 continued in a northwesterly direction after its initial impact and departed the northwest edge of the intersection. As vehicle #2 traveled along the south slope of the ditch, the left front wheel (see cells A6 and B6 in Photograph #25) dug into the ditch (see cell block F2-I3 in Photograph #14 and cell block A2-I3 in Photograph #15) causing vehicle #2 to rotate approximately 90 degrees counterclockwise and impact the right rear wheel into the north slope of the ditch. Exactly what happened next is not clear; however, the damage on vehicle #2's right quarter panel (see Photographs #20, #22, and #24) and the visible debris (see photograph #07)--including a portion of the windshield (see cell E4 in Photograph #08) and the sun roof (see cells F2 and G2 in Photograph #20), indicates that this impact probably caused vehicle #2 to roll over four quarter turns while continuing to rotate approximately an additional 90 degrees counterclockwise. *(NOTE: the locations of the crash debris is apparently crash related since an interview with rescue personnel revealed that no vehicular components were removed from the car while extracting the driver.)* During the rollover, vehicle #2 impacted a small tree along the north slope of the ditch (see cell H4 in Photograph #08). Vehicle #2 came to rest facing east on its wheels in the ditch northwest of the intersection.

**Post-Crash:**

Occupants: The occupant contact evidence found in the case vehicle and the rest position of the driver visible in the on-scene police photographs indicates that the driver of the case vehicle was ejected through the backlight during the rollover and came to rest in the ditch just west of the case vehicle's right quarter panel. She was unconscious.

Police: The investigating police agency was notified of the accident within approximately thirty minutes and arrived on-scene within approximately fifteen minutes. Traffic control procedures were established and emergency medical, volunteer fire department, and towing services were called to assist.

**COLLISION SEQUENCE (CONT'D.)**

**Rescue:** The driver was pronounced dead at the scene and was subsequently transported by ambulance to a medical facility where a noninvasive examination occurred to determine the extent of her injuries.

**Removal:** Following the police investigation, the case vehicle was towed from the scene.

**HUMAN FACTORS/OCCUPANT DATA**

	<u>Case Vehicle</u>	<u>Vehicle #2</u>
Driver:	28 year-old female	33 year-old male
Height:	Unknown	Unknown
Weight:	Unknown	Unknown
Occupation:	Homemaker	Unknown
Active Restraint System/Usage:	3-point lap and shoulder/not used	3-point lap and shoulder/used
Usage Source:	Vehicle inspection and police accident report	Police accident report
Eye glasses/contacts:	Unknown	Unknown
Vehicle Familiarity:	Unknown	Unknown
Route Familiarity:	Unknown	Unknown
Trip Plan:	Unknown just prior to crash	Returning home from work
Manner of Leaving Scene:	Ambulance	Ambulance
Type of Medical Treatment:	Dead at scene	Hospitalized

**DRIVER INJURIES**

<u>Injury</u>	<u>Severity (AIS)</u>	<u>Source</u>
Fractured left ribs: 7-10 with massive hemothorax (2000-3000 ccs)	450232.4,2	Right rear corner of cargo area
Abrasions, small, face	290202.1,9	Backlight
Lacerations, small, face	290602.1,9	Backlight
Abrasions, small, thorax	490202.1,9	Backlight
Lacerations, small, thorax	490602.1,9	Backlight

**DRIVER INJURIES (CONT'D.)**

<u>Injury</u>	<u>Severity (AIS)</u>	<u>Source</u>
Abrasions, small, abdomen	590202.1,9	Backlight
Lacerations, small, abdomen	590602.1,9	Backlight

**DRIVER KINEMATICS**

The initial posture of the driver just prior to the impact is not known. The damage locations on both vehicles (i.e., primary contact area was the right front fender on the case vehicle and the left front fender on the Fiero) indicate that the driver steered her vehicle to the left just prior to the impact resulting in the "right front side"-to-"left front side" impact configuration. (NOTE: had the case vehicle continued straight through the intersection in accordance with her original path of travel, the impact would have come through the front plane at the front right bumper corner. Photograph #26, cells C7 and M8, shows only minor scratches and an unbroken headlight and running light at the front right bumper corner.) The four o'clock force direction to the case vehicle and subsequent counterclockwise rotation would result in a rightward and rearward movement of the unrestrained driver. No evidence of occupant contact was found on the steering wheel, air bag cover, or instrument panel--left, center, or right. As the vehicle rotated counterclockwise, it departed the northwest edge of the intersection and impacted the north slope of a ditch with the right rear wheel and right quarterpanel. This impact had a sufficient rearward force component to thrust the driver rearward between the front seats and into the rear seat backs. The contact with the rear seat backs displaced them rearward and to the right (see photographs #38 and #50) causing the left hinge pin on the left rear seat back to separate from the hinge (see slide #85). The driver then contacted the plastic fascia in the right rear corner of the cargo area (see photograph #51) cracking and scuffing the plastic and displacing the left portion of the rear plastic fascia forward (see cell block F3-I3 in photograph #52). Because of the right rear impact, the case vehicle reversed its rotation from counterclockwise to clockwise. As the case vehicle rotated clockwise it began to roll over causing the driver to be ejected out the backlight and come to rest westward and near the right wheel and quarter panel of her car.

**AIR BAG SYSTEM**

Deployment Threshold:	Equivalent frontal barrier impact between 13 and 23 k.p.h. (8 and 14 m.p.h.)
Airbag Diameter (seam-to-seam, deflated):	Unknown -- nondeployed air bag
Number of Vent Holes:	Unknown -- nondeployed air bag
Vent Hole Diameter:	Unknown -- nondeployed air bag
Vent Hole Clock Positions:	Unknown -- nondeployed air bag
Generant Residue:	None -- nondeployed air bag

**SELECTED PRINTS**

A total of fifty-two color copies of photographs are presented and referenced as Photograph #01 through Photograph #52. Photographs numbered #01 through #25 were taken and made available by the [REDACTED] State Police. Photographs numbered #26 through #52 were taken by the Transportation Research Center.

## **“GRAPHIC” PHOTOGRAPHS AND IMAGES**

The following “GRAPHIC” Photographs and Images have been removed from this case.

photo # 11-14

If you would like a copy of these photographs and/or images please write to:

MARJORIE SACCOCCIO  
VOLPE NATIONAL TRANSPORTATION SYSTEMS CENTER  
55 BROADWAY  
CAMBRIDGE, MA 02142

In the body of your request please include the case, photograph and image number(s).





# 01 -- [REDACTED] 1993  
 [REDACTED] Illinois  
 TRC/IU: 93-07, Task: 0103  
 ISP Photo: Daytona's north-  
 ward approach to impact area



# 02 -- [REDACTED] 1993  
 [REDACTED] Illinois  
 TRC/IU: 93-07, Task: 0103  
 ISP Photo: Fiero's westward  
 approach to impact area





# 03 -- [REDACTED] 1993  
 [REDACTED] Illinois  
 TRC/IU: 93-07, Task: 0103  
 ISP Photo: looking south  
 opposite Daytona's approach



# 04 -- [REDACTED] 1993  
 [REDACTED] Illinois  
 TRC/IU: 93-07, Task: 0103  
 ISP Photo: fluid spill west  
 of intersection from north



# 05 -- [REDACTED] 1993  
 [REDACTED] Illinois  
 TRC/IU: 93-07, Task: 0103  
 ISP Photo: impact area and  
 Daytona's post-impact scuffs



# 06 -- [REDACTED] 1993  
 [REDACTED] Illinois  
 TRC/IU: 93-07, Task: 0103  
 ISP Photo: Daytona's final  
 rest position facing north





# 07 -- [REDACTED] 1993  
 [REDACTED] Illinois  
 TRC/IU: 93-07, Task: 0103  
 ISP Photo: Fiero's impact  
 with embankment & final rest



# 08 -- [REDACTED] 1993  
 [REDACTED] Illinois  
 TRC/IU: 93-07, Task: 0103  
 ISP Photo: Fiero rotated  
 CCW & went westward to FR





# 09 -- [REDACTED] 1993  
 [REDACTED], Illinois  
 TRC/IU: 93-07, Task: 0103  
 ISP Photo: roadside divot  
 and trip point for Daytona



# 10 -- [REDACTED] 1993  
 [REDACTED], Illinois  
 TRC/IU: 93-07, Task: 0103  
 ISP Photo: looking west at  
 Daytona's FR facing north





# 15 -- [REDACTED] 1993  
 [REDACTED] Illinois  
 TRC/IU: 93-07, Task: 0103  
 ISP Photo: looking south at  
 Daytona at final rest



# 16 -- [REDACTED] 1993  
 [REDACTED] Illinois  
 TRC/IU: 93-07, Task: 0103  
 ISP Photo: Daytona at body  
 shop post removal from scene



# 17 - [REDACTED], 1993  
 [REDACTED] Illinois  
 TRC/IU: 93-07, Task: 0103  
 ISP Photo: Daytona front &  
 right side at body shop



# 18 - [REDACTED] 1993  
 [REDACTED] Illinois  
 TRC/IU: 93-07, Task: 0103  
 ISP Photo: Daytona steering  
 wheel & nondeployed air bag





# 19 -- [REDACTED] 1993  
 [REDACTED] Illinois  
 TRC/IU: 93-07, Task: 0103  
 ISP Photo: closeup of air  
 bag cover through LF window



# 20 -- [REDACTED] 1993  
 [REDACTED] Illinois  
 TRC/IU: 93-07, Task: 0103  
 ISP Photo: looking north at  
 Fiero at FR facing east





# 21 -- [REDACTED], 1993  
 [REDACTED] Illinois  
 TRC/IU: 93-07, Task: 0103  
 ISP Photo: looking NE at  
 proximity of Fiero & Daytona



# 22 -- [REDACTED], 1993  
 [REDACTED] Illinois  
 TRC/IU: 93-07, Task: 0103  
 ISP Photo: closeup of Fiero  
 right-rear damage



# 23 -- [REDACTED] 1993  
 [REDACTED] Illinois  
 TRC/IU: 93-07, Task: 0103  
 ISP Photo: looking east at  
 Fiero's final rest position



# 24 -- [REDACTED] 1993  
 [REDACTED] Illinois  
 TRC/IU: 93-07, Task: 0103  
 ISP Photo: Fiero's right  
 side damage





# 25 -- [REDACTED] 1993  
 [REDACTED] Illinois  
 TRC/IU: 93-07, Task: 0103  
 ISP Photo: Fiero's left  
 side damage



# 26 -- [REDACTED] 1993  
 [REDACTED] Illinois  
 TRC/IU: 93-07, Task: 0103  
 TRC Photo: Dodge Daytona's  
 front damage



# 27 -- [REDACTED], 1993  
 [REDACTED], Illinois  
 TRC/IU: 93-07, Task: 0103  
 TRC Photo: Daytona's damage  
 from front-left perspective



# 28 -- [REDACTED], 1993  
 [REDACTED], Illinois  
 TRC/IU: 93-07, Task: 0103  
 TRC Photo: Daytona's damage  
 from back-left perspective





# 29 - [REDACTED] 1993  
[REDACTED], Illinois  
TRC/IU: 93-07, Task: 0103  
TRC Photo: Daytona's back  
damage



# 30 -- [REDACTED] 1993  
[REDACTED], Illinois  
TRC/IU: 93-07, Task: 0103  
TRC Photo: closeup damage &  
grass at right-rear area





# 31 -- [REDACTED], 1993  
 [REDACTED], Illinois  
 TRC/IU: 93-07, Task: 0103  
 TRC Photo: Daytona's right  
 side damage



# 32 -- [REDACTED], 1993  
 [REDACTED], Illinois  
 TRC/IU: 93-07, Task: 0103  
 TRC Photo: closeup damage  
 at right-front area



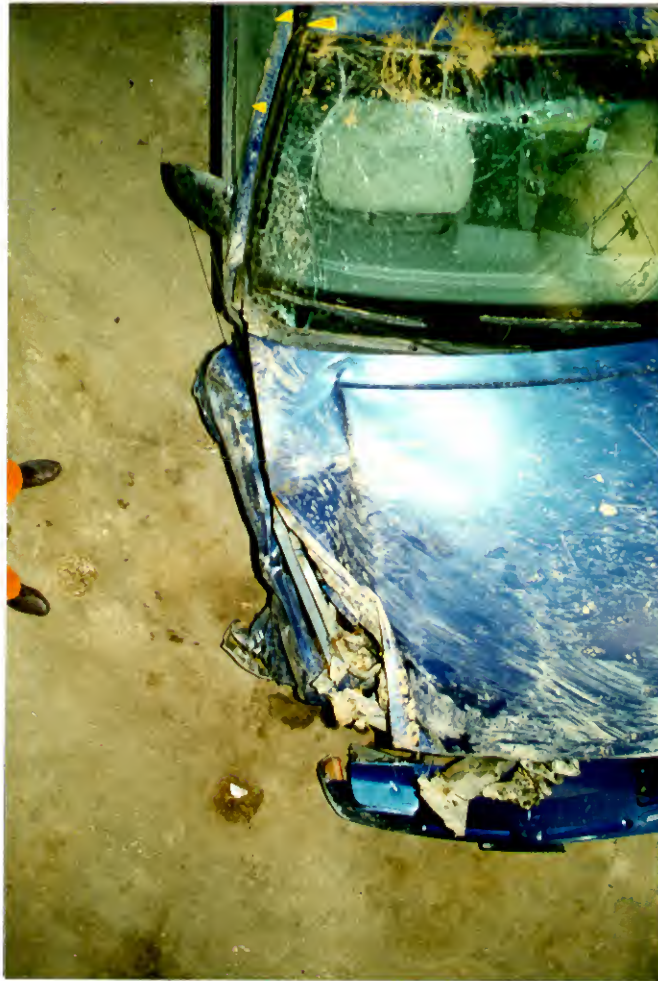
# 33 -- [REDACTED] 1993  
 [REDACTED] Illinois  
 TRC/IU: 93-07, Task: 0103  
 TRC Photo: Daytona's damage  
 from front-right perspective



# 34 -- [REDACTED] 1993  
 [REDACTED] Illinois  
 TRC/IU: 93-07, Task: 0103  
 TRC Photo: Daytona's damage  
 from top-front perspective



# 35 -- [REDACTED], 1993  
[REDACTED], Illinois  
TRC/IU: 93-07, Task: 0103  
TRC Photo: Daytona's damage  
from top-right perspective



# 36 -- [REDACTED], 1993  
[REDACTED], Illinois  
TRC/IU: 93-07, Task: 0103  
TRC Photo: rollover damage  
of roof area from top-back







# 37 -- [REDACTED] 1993  
[REDACTED] Illinois  
TRC/IU: 93-07, Task: 0103  
TRC Photo: rollover damage  
from top-left perspective



# 38 -- [REDACTED] 1993  
[REDACTED] Illinois  
TRC/IU: 93-07, Task: 0103  
TRC Photo: rollover damage  
& ejection path--top-back



# 39 -- [REDACTED] 1993  
 [REDACTED] Illinois  
 TRC/IU: 93-07, Task: 0103  
 TRC Photo: front damage and  
 contour gauge from left



# 40 -- [REDACTED] 1993  
 [REDACTED] Illinois  
 TRC/IU: 93-07, Task: 0103  
 TRC Photo: front damage and  
 contour gauge from right





# 41 -- [REDACTED] 1993  
 [REDACTED] Illinois  
 TRC/IU: 93-07, Task: 0103  
 TRC Photo: driver's area  
 after seat removed by ISP



# 42 -- [REDACTED] 1993  
 [REDACTED] Illinois  
 TRC/IU: 93-07, Task: 0103  
 TRC Photo: steering wheel &  
 bag cover-no loading evident





# 43 -- [REDACTED] 1993  
 [REDACTED], Illinois  
 TRC/IU: 93-07, Task: 0103  
 TRC Photo: steering wheel &  
 instrument panel



# 44 -- [REDACTED] 1993  
 [REDACTED], Illinois  
 TRC/IU: 93-07, Task: 0103  
 TRC Photo: closeup steering  
 wheel & air bag cover



# 45 - [REDACTED] 1993  
[REDACTED], Illinois  
TRC/IU: 93-07, Task: 0103  
TRC Photo: center panel  
with portions missing



# 46 - [REDACTED] 1993  
[REDACTED], Illinois  
TRC/IU: 93-07, Task: 0103  
TRC Photo: center & right  
instrument panel areas





# 47 - [REDACTED] 1993  
[REDACTED], Illinois  
TRC/IU: 93-07, Task: 0103  
TRC Photo: driver's area  
from right front door



# 48 - [REDACTED] 1993  
[REDACTED], Illinois  
TRC/IU: 93-07, Task: 0103  
TRC Photo: rear seats bent  
by ejection-from driver area

# 49 -- [REDACTED] 1993  
[REDACTED] Illinois  
TRC/IU: 93-07, Task: 0103  
TRC Photo: bent rear seats  
from top through backlight



# 50 -- [REDACTED] 1993  
[REDACTED] Illinois  
TRC/IU: 93-07, Task: 0103  
TRC Photo: bent rear seats  
from back through backlight







# 51 -- [REDACTED] 1993  
 [REDACTED] Illinois  
 TRC/IU: 93-07, Task: 0103  
 TRC Photo: driver contact  
 in right rear cargo area



# 52 -- [REDACTED] 1993  
 [REDACTED] Illinois  
 TRC/IU: 93-07, Task: 0103  
 TRC Photo: driver contact  
 in RR cargo area from top



**SLIDE INDEX**

## SLIDE INDEX

Slide No.	Vehicle No.	Description	Direction
1	CV	Opposite direction of travel from north	South
2-4	CV	Approach to area of first harmful event	North
5	CV	Approximate location of first harmful event in westbound lane	Northwest
6	CV	Approach to impact with north slope of ditch	Northwest
7,8	CV	Location of rollover event; reconstruction jig placed at final rest position	West
9	CV	Final rest position; case vehicle was on its top facing north at final rest	West
10	CV	Final rest position viewed from north edge of the east-west roadway	North
11	CV	Final rest position viewed from opposite post-impact travel direction	East
12	CV	Opposite direction of travel from north leg of intersection	South
13	#2	Opposite direction of travel from west	East
14-16	#2	Approach to area of first harmful event	West
17	#2	Approximate location of first harmful event in westbound lane	West
18-22	#2	Post-impact path of travel showing left-front wheel gouge in south slope of ditch and right rear wheel gouges and trip point in north slope of ditch	West
23	#2	Small tree impacted during rollover	West
24	#2	Final rest position; vehicle #2 was on its wheels facing east at final rest	West
25	#2	Final rest position viewed from opposite post-impact travel direction	East
26	#2	Final rest position viewed from north edge of the east-west roadway	North

## SLIDE INDEX (Continued)

Slide No.	Vehicle No.	Description	Direction
27-64	CV	Exterior of Case Vehicle	
27	CV	Front bumper, hood, and radiator	
28	CV	Windshield	
29	CV	Front bumper and hood	
30	CV	Front bumper, hood, and left side	
31,32	CV	Left side	
33	CV	Left side and back	
34,35	CV	Back bumper and hatch	
36	CV	Right quarter panel and right rear wheel	
37	CV	Right side	
38	CV	Right front fender	
39	CV	Close-up of direct damage to front edge of right front door	
40	CV	Right side, front bumper, and hood	
41	CV	Front bumper, hood, and displacement of right front frame	
42-44	CV	Front bumper	
45-47	CV	Right front fender	
48	CV	Trim broken away from left upper quarter panel	
49	CV	Trim broken away from right upper quarter panel	
50	CV	Spoiler broken off from back of rear hatch	
51-55	CV	Top of case vehicle	
56	CV	Dirt jammed in right front window and behind top of right front window frame	
57	CV	Dirt jammed under upper left windshield trim	

## SLIDE INDEX (Continued)

Slide No.	Vehicle No.	Description	Direction
58	CV	Dirt jammed in upper left seam of rear hatch	
59-64	CV	Documentation of frontal and right front fender damage	
65-85	CV	Interior of Case Vehicle	
65-73	CV	Instrument panel, windshield, and steering wheel; nondeployed air bag and no evidence of occupant contacts present	
74	CV	Right front and rear seats	
75	CV	Right front and rear manual seat belts	
76	CV	Rear seats and left front and rear manual seat belts	
77	CV	Left front and rear manual seat belts	
78-84	CV	Occupant contacts to rear seats and right rear corner of cargo area; also, ejection path of driver	
85	CV	Hinge pin separated from hinge on left side of left rear seat	



IN 9307 #1



IN 9307 #2



IN 9307 #3



IN 9307 #4





IN 9307 #5



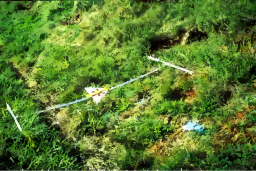
IN 9307 #6



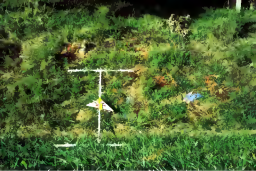
IN 9307 #7



IN 9307 #8



IN 9307 #9



IN 9307 #10



IN9307 #11



IN 8307 #12





IN 9307 #13



IN 9307 #14



IN 9307 #15



IN 9307 #16



IN 9307 #17



IN 9307 #18



IN 9307 #19



IN 9307 #20





IN9307 #21



IN9307 #22



IN 9307 #23



IN 9307 #24



IN 9307 #25



IN 9307 #26



IN 9307 #27



IN9307 #28





IN 9307 #29



IN9307 #30



IN 9307 #31



IN 9307 #32



**IN 9307 #33**  
**Best Available**



IN 9307 #34





IN 9307 #35



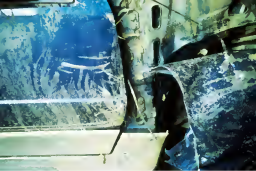
IN 9307 #36



IN 9307 #37  
Best Available



IN 9307 #38



IN 9307 #39



IN9307 #40





IN 9307 #41



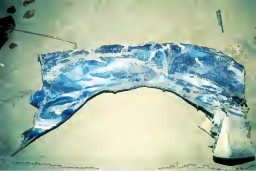
IN 9307 #42



IN 9307 #43



IN 9307 #44



IN 9307 #45



IN 9307 #46



IN9307 #47





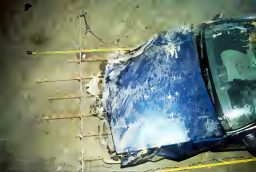
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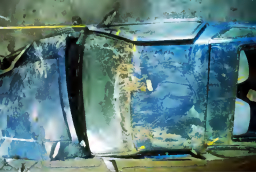
IN 9307 #49



IN 9307 #50



IN 9307 #51  
Best Available



IN 9307 #52  
Best Available



IN 9307 #53  
Best Available



IN 9307 #54  
Best Available

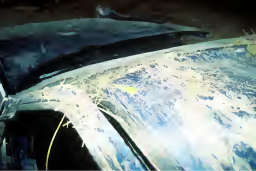




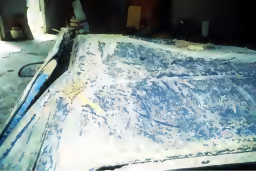
IN 9307 #55  
Best Available



IN 8307 #56



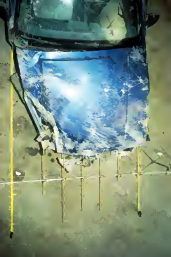
IN 9307 #57



IN 9307 #58



IN9307 #59  
Best Available



IN 9307 #60  
Best Available



IN 9307 #61  
Best Available





IN 9307 #62  
Best Available



IN 9307 #63



IN 9307 #64



IN 9307 #65  
Best Available



IN 9307 #68



IN 9307 #67



IN 9307 #68





IN 9307 #69



IN9307 #70



IN9307 #71



IN 9307 #72



IN9307 #73



IN 9307 #74  
Best Available



IN 9307 #75



IN 9307 #76  
Best Available





IN 9307 #77



IN9307 #78  
Best Available



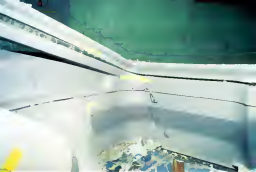
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Best Available



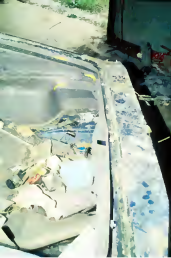
IN 9307 #80  
Best Available



IN 9307 #81  
Best Available



IN 9307 #82  
Best Available



IN 9307 #83  
Best Available



IN 9307 #64  
Best Available





IN9307 #85

**ACCIDENT COLLISION MEASUREMENT TABLE**

**NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM**

Case Number—Stratum 9307

ACCIDENT COLLISION DIAGRAM																											
<p style="text-align: center;"><b>LEVEL I</b> <b>PHYSICAL EVIDENCE ABSENT</b></p> <p>To be accomplished when there is no physical evidence present at the scene:</p> <ul style="list-style-type: none"> <li>• approximate vehicle orientation at impact and final rest</li> <li>• applicable road/roadway delineation (e.g., curve/edge lines, lane markings, median markings, pavement markings, etc.)</li> <li>• applicable traffic controls (e.g., speed limit)</li> <li>• north arrow placed on diagram</li> <li>• sketch required</li> </ul>	<p style="text-align: center;"><b>LEVEL II (Cont'd)</b> <b>physical evidence is present:</b></p> <ul style="list-style-type: none"> <li>• document reference point and reference line relative to physical features present at the scene</li> <li>• scale documentation of all accident induced physical evidence</li> <li>• scaled documentation of all roadside objects contacted</li> <li>• roadway surface type and condition of applicable roadways</li> <li>• grade measurements for all applicable roadways and at location of rollover initiation</li> <li>• scaled representations of the vehicle(s) at pre-impact, impact, and final rest based upon either:               <div style="margin-left: 20px;">                 a) physical evidence, or                   b) reconstructed accident dynamics               </div> </li> </ul>	<p style="text-align: center;"><b>CRASH DATA</b></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;"></th> <th style="width: 16.5%; text-align: center;">VEH. #1</th> <th style="width: 16.5%; text-align: center;">VEH. #2</th> <th style="width: 34%; text-align: center;">VEH. #3</th> </tr> </thead> <tbody> <tr> <td>Heading Angle</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>Surface Type</td> <td style="text-align: center;"><u>Asphalt</u></td> <td style="text-align: center;"><u>Asphalt</u></td> <td style="text-align: center;">_____</td> </tr> <tr> <td>Surface Condition</td> <td style="text-align: center;"><u>dry</u></td> <td style="text-align: center;"><u>dry</u></td> <td style="text-align: center;">_____</td> </tr> <tr> <td>Grade (v/h) Measurement (between impact and final rest)</td> <td style="text-align: center;"><u>0</u> <u>122</u> <u>cm</u></td> <td style="text-align: center;"><u>2</u> <u>127</u> <u>cm</u></td> <td style="text-align: center;">_____</td> </tr> <tr> <td>Grade (v/h) Measurement (at location of rollover initiation)</td> <td style="text-align: center;"><u>29 cm</u> <u>122 cm</u></td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> </tbody> </table>			VEH. #1	VEH. #2	VEH. #3	Heading Angle	_____	_____	_____	Surface Type	<u>Asphalt</u>	<u>Asphalt</u>	_____	Surface Condition	<u>dry</u>	<u>dry</u>	_____	Grade (v/h) Measurement (between impact and final rest)	<u>0</u> <u>122</u> <u>cm</u>	<u>2</u> <u>127</u> <u>cm</u>	_____	Grade (v/h) Measurement (at location of rollover initiation)	<u>29 cm</u> <u>122 cm</u>	_____	_____
	VEH. #1	VEH. #2	VEH. #3																								
Heading Angle	_____	_____	_____																								
Surface Type	<u>Asphalt</u>	<u>Asphalt</u>	_____																								
Surface Condition	<u>dry</u>	<u>dry</u>	_____																								
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Grade (v/h) Measurement (at location of rollover initiation)	<u>29 cm</u> <u>122 cm</u>	_____	_____																								
<p style="text-align: center;"><b>LEVEL II</b> <b>PHYSICAL EVIDENCE PRESENT</b></p> <p>In addition to the level I tasks noted above, the following must be accomplished when</p>																											

Reference Point: CONCRETE SURVEY MARKER Reference line: N Fwy LINE  
10.9 N of Rd  
on EMMENTMENT

Item	Distance and Direction from Reference Point	Distance and Direction from Reference Line
LINE 1 + 4 (METERS) (6.5 x 1.1)	7.9 E (METERS)	2.9 N (METERS)
LINE 1 + 3 (2.5 x 1.1)	4.9 E	5.2 N ✓
LINE 1 + 2 (2.6 x 1.5)	7.6 E	6.8 N ✓
LINE 1 + 1 (3.4 x 0.6)	9.8 E	2.5 N ✓
LINE 1 + 5	1.4 W	6.6 N ✓
LINE 1 + 6 (6.6 x .6)	3.4 W	3.5 N ✓
LINE 1 + 7 (1.5 x .5)	2.7 W	6.4 N ✓
LINE 1 + 8	2.4 W	7.2 N ✓
LINE 1 + 9 (1 x 1)	2.4 W	8.2 N ✓
LINE 1 + 10	4.5 W	7.7 N ✓
LINE 1 + 11 (2.4 x .5)	10.1 W	7.8 N ✓
LINE 1 + 12 (4.8 x .7)	1.7 W	7.7 N ✓
LINE 1 + 13 (1.8 x .6)	2.7 W ✓	7.1 N ✓

[illegible]

**Appendix A:**

**Police Accident Report**

## ILLINOIS TRAFFIC CRASH REPORT

Sheet 1 3 Sheets

DRAC	PEDV	TRFD	TRFC	WEAT	DRVA	VIS	VEHD	LIGHT
2	1	X	2	4	1	2	1	4
U1	U2				U1	U2	U1	U2

FOR IDOT USE ONLY

INVESTIGATED BY  
**ILLINOIS STATE POLICE**

TYPE OF REPORT  
☒ ON-SCENE ☐ DESK ☐ SUPPLEMENTARY ☒ A Property Damage Only / Drive Away ☒ B All Others

AGENCY CRASH REPORT NO. [REDACTED]

ADDRESS NO (OPTIONAL) [REDACTED] HIGHWAY or STREET NAME [REDACTED] Rd.

DATE OF CRASH [REDACTED] 93

TIME [REDACTED] 8:30 PM

NO. MOTOR VEHICLES INVOLVED [REDACTED] 2

ANY SINGLE VEHICLE/PROPERTY DAMAGED OVER \$500 ☒ Yes ☐ No

HIT & RUN ☐ Yes ☒ No

INTERSECTION RELATED ☒ Yes ☐ No

PRIVATE PROPERTY ☐ Yes ☒ No

CIRCLE NUMBER(S) FOR DAMAGED AREA(S)  
00 - NONE  
10 - UNDER CARRIAGE  
11 - TOTAL (ALL AREAS)  
12 - OTHER  
99 - UNKNOWN

POINT OF FIRST CONTACT [REDACTED] 01

TOWED Y N  
DUE TO DAMAGE ☒ ☐  
OTHER ☐ ☒  
FIRE ☐ ☒  
HAZ MAT. ☐ ☒  
COM VEH. ☐ ☒

VEHICLE 1  
MAKE [REDACTED] DODGE DAYTONA  
MODEL [REDACTED] 90  
YEAR [REDACTED] 94  
STATE [REDACTED] IL  
VIN [REDACTED] 1B3XG44K2LG  
VEHICLE OWNER [REDACTED]  
OWNER ADDRESS (city, state, zip) [REDACTED]  
INSURANCE CO. [REDACTED]  
TELEPHONE [REDACTED]  
POLICY NO. [REDACTED]

VEHICLE 2  
MAKE [REDACTED] PONTIAC FIERO  
MODEL [REDACTED] 87  
YEAR [REDACTED] 93  
STATE [REDACTED] IL  
VIN [REDACTED] 1G2PG1198HP  
VEHICLE OWNER [REDACTED]  
OWNER ADDRESS (city, state, zip) [REDACTED]  
INSURANCE CO. [REDACTED]  
TELEPHONE [REDACTED]  
POLICY NO. [REDACTED]

DATE OF BIRTH [REDACTED] 3/3/73  
SEX [REDACTED] F  
SAFT [REDACTED] 3  
INJURY [REDACTED] K  
EJECT [REDACTED] 2  
STATE [REDACTED] IL  
CLASS [REDACTED] O

DATE OF BIRTH [REDACTED] 1/1/73  
SEX [REDACTED] M  
SAFT [REDACTED] U  
INJURY [REDACTED] A  
EJECT [REDACTED] 1  
STATE [REDACTED] IL  
CLASS [REDACTED] H,T

EMS AGENCY [REDACTED] Amb.  
HOSPITAL [REDACTED] Amb.

UNIT 1  
SEAT [REDACTED] 2  
DOB [REDACTED] 1/1/73  
SEX [REDACTED] M  
SAFT [REDACTED] X  
UNL [REDACTED] B  
EJECT [REDACTED] 1

UNIT 2  
SEAT [REDACTED] 1  
DOB [REDACTED] 1/1/73  
SEX [REDACTED] M  
SAFT [REDACTED] X  
UNL [REDACTED] B  
EJECT [REDACTED] 1

DAMAGED PROPERTY OWNER NAME [REDACTED] N/A  
PROPERTY OWNER ADDRESS [REDACTED]  
CITY [REDACTED] STATE [REDACTED] ZIP [REDACTED]

ARREST NAME [REDACTED] N/A  
SECTION [REDACTED]  
CITATION NO [REDACTED]

ARREST NAME [REDACTED] N/A  
SECTION [REDACTED]  
CITATION NO [REDACTED]

OFFICER ID [REDACTED] SIGNATURE [REDACTED] BEAT (DIST) [REDACTED] SUPERVISOR / ID [REDACTED]

FOR IDOT USE ONLY  
DATE POLICE NOTIFIED [REDACTED] 1/13  
TIME NOTIFIED [REDACTED] 8:30 PM

\*IF YES, COMPLETE COMMERCIAL VEHICLE AREA ON BACK OF FORM

DIAGRAM

" SEE ATTACHED SCALE DRAWING "

INDICATE NORTH  
BY ARROW

## NARRATIVE (Refer to vehicle by Unit No.)

Scene evidence and [REDACTED] statements imply the following. [REDACTED] and [REDACTED] had been partying at a class reunion and at the [REDACTED] lounge and at the [REDACTED] lounge in [REDACTED], IL from app. [REDACTED] until just prior to the accident. [REDACTED] had consumed several beers as had [REDACTED]. [REDACTED] and [REDACTED] got into an argument and [REDACTED] exited from Unit 1 drivers position at the intersection of [REDACTED] Rd. and [REDACTED] Rd. [REDACTED] moved into the drivers position and drove off leaving [REDACTED] standing along side the road. [REDACTED] drove south on [REDACTED] road over  $\frac{1}{2}$  mile turned around and accelerated back towards [REDACTED] Rd. [SEE PAGE TWO]

## LOCAL USE ONLY

CC#1 = 09

CC#2 = 19

U1 Color BLUE

U2 Color GOLD

U1 Towed by / to

U2 Towed by / to

Body Setup

Body Setup

## COMMERCIAL VEHICLE

UNIT NO. \_\_\_\_\_

CARRIER NAME \_\_\_\_\_

SOURCE \_\_\_\_\_

☐ Side of truck  
☐ Papers  
☐ Driver  
☐ None

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_

STATE \_\_\_\_\_

ZIP \_\_\_\_\_

GVWR \_\_\_\_\_

ID NUMBER  
US DOT \_\_\_\_\_

ICCMC \_\_\_\_\_

or State No. \_\_\_\_\_

State name \_\_\_\_\_ ☐ None

HAZARDOUS MATERIALS:

PLACARDED? ☐ Yes ☐ No

If Yes: 4-Digits \_\_\_\_\_

or Name \_\_\_\_\_

1-Digit \_\_\_\_\_

Y N Unk

Hazardous cargo released from truck? ☐ ☐

(do not count fuel from vehicle fuel tank)

Violation of HAZMAT regs. contribute to crash? ☐ ☐ ☐Violation of MCS regs. contribute to crash? ☐ ☐ ☐

Inspection form completed? \_\_\_\_\_

Y N Unk

Y N

Form No. \_\_\_\_\_

- HAZMAT ☐ ☐ ☐ ☐Out of Service? ☐ ☐- MCS ☐ ☐ ☐ ☐Out of Service? ☐ ☐

IDOT PERMIT # \_\_\_\_\_

TRAILER WIDTH(S) \_\_\_\_\_

0-66" 67-102" Over 102"

Trailer 1 ☐ ☐ ☐Trailer 2 ☐ ☐ ☐

TRAILER LENGTH(S) - R \_\_\_\_\_

Trailer 1 \_\_\_\_\_

Trailer 2 \_\_\_\_\_

VEHICLE LENGTH (TOTAL) - R \_\_\_\_\_

NO. OF AXLES \_\_\_\_\_



☐ IN CITY OF / ☐ NEAREST CITY: \_\_\_\_\_Miles N E S W of:  
(Circle)

VEHICLE CONFIGURATION (Circle Applicable Number)

1   
Bus4   
Truck/trailer7   
Tractor/doubles2   
Single unit truck, 2 axles, 6 tires5   
Truck/tractor3   
Single unit truck, 3 or more axles6   
Tractor/semi-trailer

9 Unknown Heavy Truck

CARGO BODY TYPE (Circle Applicable Number)

1   
Bus4   
Flatbed7   
Auto transporter2   
Van/enclosed box5   
Dump8   
Garbage/refuse3   
Cargo tank6   
Concrete mixer

9 Unknown

ILLINOIS STATE POLICE UNIVERSAL ADDENDUM FORM	1. Original Report Type	2. Report Date	3. Original Report #
	ACCIDENT	[REDACTED]-93	[REDACTED] S

## NARRATIVE

## PASSENGER/WITNESS/OTHER LIST

Name	Address	City/State	Age	IC Code	Seat Pos	Unit #	Sex
------	---------	------------	-----	---------	----------	--------	-----

[REDACTED] drove through the marked stop position and onto [REDACTED] Rd. north bound off [REDACTED] Rd. [REDACTED] was standing 15 feet east of [REDACTED] Rd. on the south shoulder of [REDACTED] Rd. [REDACTED] stated that he witnessed Unit 1 hit Unit 2 in the drivers side. Unit 1 then spun and flipped landing on its top in the ditch North West of the intersection. [REDACTED] was ejected from unit and was lying on her right side in the ditch.

Unit 2 driver [REDACTED] was west bound on [REDACTED] road headed towards [REDACTED] having just gotten off work from [REDACTED] in [REDACTED] Il [REDACTED]. Unit 1 drove into side of Unit 2 knocking Unit 2 into embankment on North West side of intersection. [REDACTED] ran over to [REDACTED] and initially thought she was breathing and then went to unit 2 driver [REDACTED] to check for injuries. [REDACTED] slipped on the slick embankment and fell onto the partially open drivers door of unit 2, causing a minor cut on his lip and a fracture of a lower right rib. [REDACTED] saw [REDACTED] was bleeding from the mouth and making sounds of having fluid in his airway. [REDACTED] began mouth to mouth resuscitation after removing [REDACTED] from unit 2. A few min. later a [REDACTED] ( [REDACTED] ) drove up and stopped recognizing [REDACTED] as a neighbor. [REDACTED] asked [REDACTED] to check [REDACTED] [REDACTED] advised she did and believed [REDACTED] was dead. [REDACTED] advised [REDACTED] of her belief and went to summon help. Marion County units were the first units at the scene and called for the State Police to handle. R/O arrived at app. [REDACTED] and requested an accident reconstruction officer to assist. Tpr. [REDACTED] and Tpr. [REDACTED] were dispatched. See attached diagram submitted by Tpr. [REDACTED].

R/O interviewed : [REDACTED] "witness", [REDACTED] "information source", [REDACTED] "Fire Chief", [REDACTED] "EMT". [OVER]

Investigating/Reporting Officer's Signature	ID #	District #	Date
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]-93



## NARRATIVE

PASSENGER/WITNESS/OTHER con't.

Page 3 of 3 Pages

Name	Address	City/State	Age	Inj. Code	Seat Pos	Unit #	Sex
------	---------	------------	-----	-----------	----------	--------	-----

\_\_\_\_\_ was uncounscious and in criticle conditions and could not talk with R/O.

\_\_\_\_\_ was transfered from \_\_\_\_\_ to \_\_\_\_\_ Medical center due to the severity of his injuries.

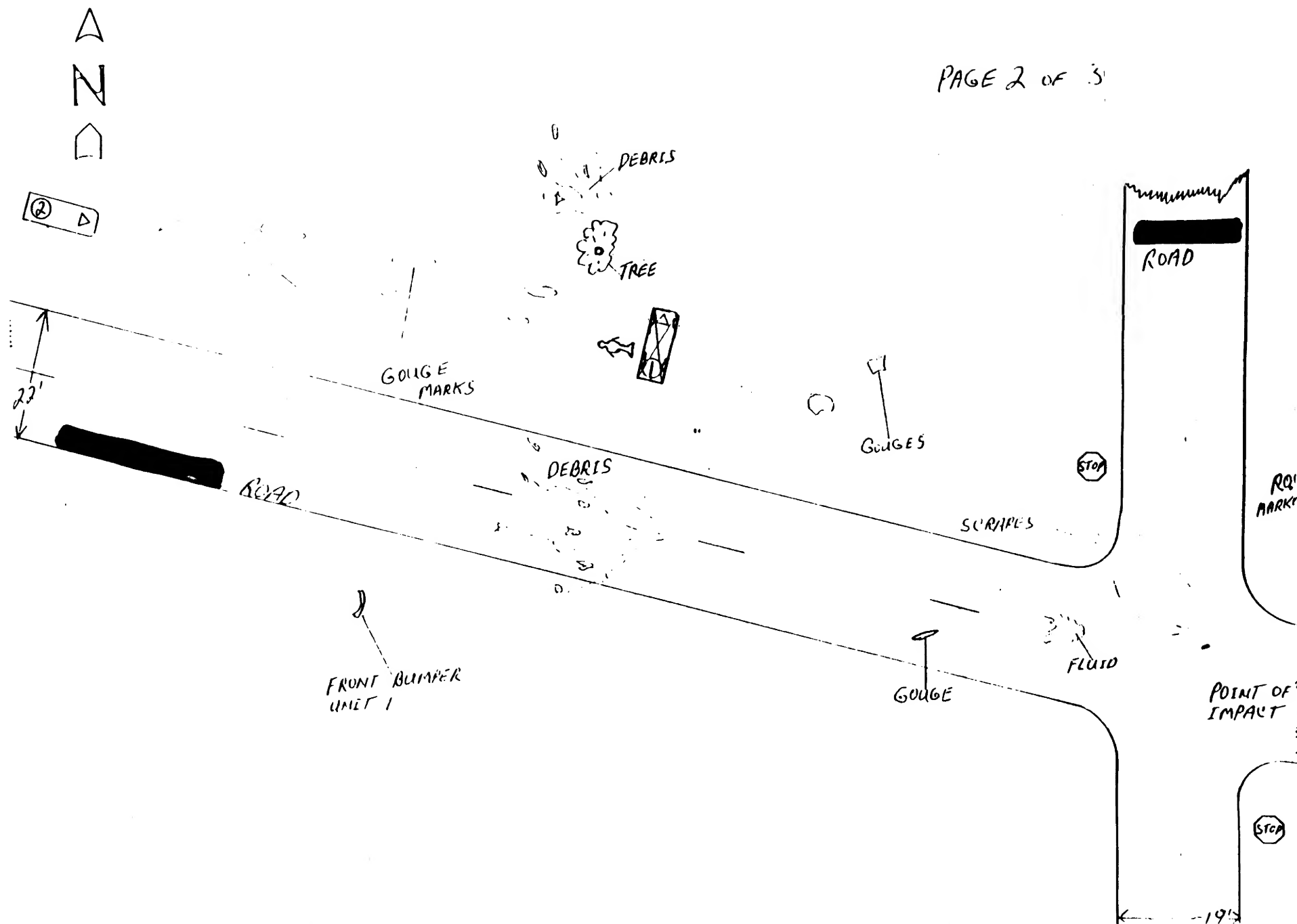
\_\_\_\_\_ accompanied \_\_\_\_\_ from the scene to the hospital and advised that \_\_\_\_\_ was uncounscious the entire time.

\_\_\_\_\_ (EMT) advised that he accompanied \_\_\_\_\_ to the hospital and that he was very intoxicated and was violent and cursing at \_\_\_\_\_ and repeatedly asked if his wife was dead.

\_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_ were transported by \_\_\_\_\_ ambulances seperately.

Time	Vehicle Color	Year	Make	License #	State
------	---------------	------	------	-----------	-------

PAGE 2 OF 3



## Appendix B:

### Vector Analysis Program Results

Twelve iterations were used to demonstrate the theoretical Direction of Principle Force that would have resulted to both vehicles based on reasonable upper and lower estimates of each vehicle's speed. Based on the vehicles damage and their post-impact trajectories, the case vehicle's speed was estimated to be between 48 and 72 k.p.h. (30-45 m.p.h.), whereas vehicle #2's speed was estimated to be between 80 and 97 k.p.h. (50-60 m.p.h.). Increments of 8 k.p.h. (5 m.p.h.) were used for both vehicles. Vehicle heading angles were determined from our investigation. Vehicle weights are based on manufacturer specifications and default values (i.e., GV20 and OA08)--from the NASS CDS Data Collection, Coding, and Editing Manual, appropriate to the CRASH3PC protocol. The only iteration that produced a DOPF of less than 90 degrees (i.e., 87 degrees) for the case vehicle occurred when the case vehicle's speed was estimated at 72 k.p.h. (45 m.p.h.) and vehicle #2's speed was estimated at 80 k.p.h. (50 m.p.h.). In every other iteration, the case vehicle's DOPF was estimated at greater than 90 degrees. Therefore, the most likely scenario for the case vehicle is that the Longitudinal Delta V was positive (back to front) rather than negative (front to back).

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum

Case Number: 10 9307

Vehicle Numbers: 01 and 02

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)

(Neither Vehicle May Be Backing)

(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)

(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)		
Ln. Axis Heading Angle	350	320		
CG Heading Angle	350	320		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	0	0		
Weight-Vehicle Curb Wt	1248	1241		
Weight-Passenger(s)	61	78		
Weight-Total	1309	1319		
Estimated Speed	48	80		
Momentum	62832	105520		
PDOF (Degrees)	118	-32	91	STM
PDOF (Clock Direction)	4	11		
Theoretical Delta V	22.7	22.6		
Theoretical Common Vel.		62.0	Post-Crash CG Heading	331

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum

Case Number: 10 9307

Vehicle Numbers: 01 and 02

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)

(Neither Vehicle May Be Backing)

(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)

(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)		
Ln. Axis Heading Angle	350	320		
CG Heading Angle	350	320		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	0	0		
Weight-Vehicle Curb Wt	1248	1241		
Weight-Passenger(s)	61	78		
Weight-Total	1309	1319		
Estimated Speed	56	80		
Momentum	73304	105520		
PDOF (Degrees)	109	-41	91	STM
PDOF (Clock Direction)	4	11		
Theoretical Delta V	21.2	21.0		
Theoretical Common Vel.		65.8	Post-Crash CG Heading	332

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum

Case Number: 10 9307

Vehicle Numbers: 01 and 02

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)

(Neither Vehicle May Be Backing)

(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)

(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)		
Ln. Axis Heading Angle	350	320		
CG Heading Angle	350	320		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	0	0		
Weight-Vehicle Curb Wt	1248	1241		
Weight-Passenger(s)	61	78		
Weight-Total	1309	1319		
Estimated Speed	64	80		
Momentum	83776	105520		
PDOF (Degrees)	98	-52	09/91	STM
PDOF (Clock Direction)	3	10		
Theoretical Delta V	20.3	20.1		
Theoretical Common Vel.		69.6	Post-Crash CG Heading	333

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum

Case Number: 10 9307

Vehicle Numbers: 01 and 02

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)

(Neither Vehicle May Be Backing)

(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)

(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)		
Ln. Axis Heading Angle	350	320		
CG Heading Angle	350	320		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	0	0		
Weight-Vehicle Curb Wt	1248	1241		
Weight-Passenger(s)	61	78		
Weight-Total	1309	1319		
Estimated Speed	72	80		
Momentum	94248	105520		
PDOF (Degrees)	87	-63	09/91	STM
PDOF (Clock Direction)	3	10		
Theoretical Delta V	20.1	20.0		
Theoretical Common Vel.		73.4	Post-Crash CG Heading	334

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum

Case Number: 10 9307

Vehicle Numbers: 01 and 02

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)

(Neither Vehicle May Be Backing)

(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)

(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)		
Ln. Axis Heading Angle	350	320		
CG Heading Angle	350	320		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	0	0		
Weight-Vehicle Curb Wt	1248	1241		
Weight-Passenger(s)	61	78		
Weight-Total	1309	1319		
Estimated Speed	48	89		
Momentum	62832	117391		
PDOF (Degrees)	123	-27	01/91	STM
PDOF (Clock Direction)	4	11		
Theoretical Delta V	26.7	26.5		
Theoretical Common Vel.		66.5	Post-Crash CG Heading	330

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum

Case Number: 10 9307

Vehicle Numbers: 01 and 02

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)

(Neither Vehicle May Be Backing)

(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)

(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)		
Ln. Axis Heading Angle	350	320		
CG Heading Angle	350	320		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	0	0		
Weight-Vehicle Curb Wt	1248	1241		
Weight-Passenger(s)	61	78		
Weight-Total	1309	1319		
Estimated Speed	56	89		
Momentum	73304	117391		
PDOF (Degrees)	116	-34	01/91	STM
PDOF (Clock Direction)	4	11		
Theoretical Delta V	24.7	24.5		
Theoretical Common Vel.		70.2	Post-Crash CG Heading	331

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum

Case Number: 10 9307

Vehicle Numbers: 01 and 02

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)

(Neither Vehicle May Be Backing)

(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)

(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)		
Ln. Axis Heading Angle	350	320		
CG Heading Angle	350	320		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	0	0		
Weight-Vehicle Curb Wt	1248	1241		
Weight-Passenger(s)	61	78		
Weight-Total	1309	1319		
Estimated Speed	64	89		
Momentum	83776	117391		
PDOF (Degrees)	107	-43	0/91	STM
PDOF (Clock Direction)	4	11		
Theoretical Delta V	23.3	23.1		
Theoretical Common Vel.		74.0	Post-Crash CG Heading	332

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum

Case Number: 10 9307

Vehicle Numbers: 01 and 02

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)

(Neither Vehicle May Be Backing)

(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)

(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)		
Ln. Axis Heading Angle	350	320		
CG Heading Angle	350	320		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	0	0		
Weight-Vehicle Curb Wt	1248	1241		
Weight-Passenger(s)	61	78		
Weight-Total	1309	1319		
Estimated Speed	72	89		
Momentum	94248	117391		
PDOF (Degrees)	97	-53	0/91	STM
PDOF (Clock Direction)	3	10		
Theoretical Delta V	22.5	22.3		
Theoretical Common Vel.		77.8	Post-Crash CG Heading	333

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum

Case Number: 10 9307

Vehicle Numbers: 01 and 02

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)

(Neither Vehicle May Be Backing)

(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)

(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)		
Ln. Axis Heading Angle	350	320		
CG Heading Angle	350	320		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	0	0		
Weight-Vehicle Curb Wt	1248	1241		
Weight-Passenger(s)	61	78		
Weight-Total	1309	1319		
Estimated Speed	48	97		
Momentum	62832	127943		
PDOF (Degrees)	127	-23	04/91	STM
PDOF (Clock Direction)	4	11		
Theoretical Delta V	30.3	30.1		
Theoretical Common Vel.		70.4	Post-Crash CG Heading	330

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum

Case Number: 10 9307

Vehicle Numbers: 01 and 02

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)

(Neither Vehicle May Be Backing)

(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)

(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)		
Ln. Axis Heading Angle	350	320		
CG Heading Angle	350	320		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	0	0		
Weight-Vehicle Curb Wt	1248	1241		
Weight-Passenger(s)	61	78		
Weight-Total	1309	1319		
Estimated Speed	56	97		
Momentum	73304	127943		
PDOF (Degrees)	120	-30	04/91	STM
PDOF (Clock Direction)	4	11		
Theoretical Delta V	28.1	27.9		
Theoretical Common Vel.		74.2	Post-Crash CG Heading	331



PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum

Case Number: 10 9307

Vehicle Numbers: 01 and 02

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)

(Neither Vehicle May Be Backing)

(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)

(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)		
Ln. Axis Heading Angle	350	320		
CG Heading Angle	350	320		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	0	0		
Weight-Vehicle Curb Wt	1248	1241		
Weight-Passenger(s)	61	78		
Weight-Total	1309	1319		
Estimated Speed	64	97		
Momentum	83776	127943		
PDOF (Degrees)	113	-37	91	STM
PDOF (Clock Direction)	4	11		
Theoretical Delta V	26.3	26.1		
Theoretical Common Vel.		77.9	Post-Crash CG Heading	332

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum

Case Number: 10 9307

Vehicle Numbers: 01 and 02

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)

(Neither Vehicle May Be Backing)

(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)

(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)		
Ln. Axis Heading Angle	350	320		
CG Heading Angle	350	320		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	0	0		
Weight-Vehicle Curb Wt	1248	1241		
Weight-Passenger(s)	61	78		
Weight-Total	1309	1319		
Estimated Speed	72	97		
Momentum	94248	127943		
PDOF (Degrees)	105	-45	/91	STM
PDOF (Clock Direction)	4	11		
Theoretical Delta V	25.1	24.9		
Theoretical Common Vel.		81.7	Post-Crash CG Heading	333

**Appendix C:**

NASS Accident Form



U.S. Department of Transportation  
National Highway Traffic Safety  
Administration

## ACCIDENT FORM

NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

<div style="display: flex; justify-content: space-between;"><div>1. Primary Sampling Unit Number <u>10</u></div><div>2. Case Number - Stratum <u>9307</u></div></div> <div style="text-align: center; background-color: black; color: white; padding: 2px; margin-top: 5px;"><b>IDENTIFICATION</b></div> <div>3. Number of General Vehicle Forms Submitted <u>02</u></div> <div>4. Date of Accident (Month, Day, Year) <u>04/09/93</u></div> <div>5. Time of Accident <u>0600</u> <small>Code reported military time of accident.</small>  <small>NOTE: Midnight = 2400 Unknown = 9999</small></div>				<div style="text-align: center; background-color: black; color: white; padding: 2px; margin-bottom: 5px;"><b>SPECIAL STUDIES - INDICATORS</b></div> <div><small>Check (✓) each special study (SS14-SS18 below) that has been completed; code 1 for the checked special studies and 0 for the special studies not checked.</small></div> <div style="display: flex; justify-content: space-between;"><div>6. <input checked="" type="checkbox"/> SS14 Fatal AOPS</div><div><u>1</u></div></div> <div style="display: flex; justify-content: space-between;"><div>7. <input type="checkbox"/> SS15 Administrative Use</div><div><u>0</u></div></div> <div style="display: flex; justify-content: space-between;"><div>8. <input type="checkbox"/> SS16</div><div><u>0</u></div></div> <div style="display: flex; justify-content: space-between;"><div>9. <input type="checkbox"/> SS17</div><div><u>0</u></div></div> <div style="display: flex; justify-content: space-between;"><div>10. <input type="checkbox"/> SS18</div><div><u>0</u></div></div> <div style="text-align: center; background-color: black; color: white; padding: 2px; margin-top: 5px;"><b>NUMBER OF EVENTS</b></div> <div>11. Number of Recorded Events in This Accident <u>05</u>  <small>Code the number of events which occurred in this accident.</small></div>			
<b>ACCIDENT EVENTS</b>							
<small>For each event that occurred in the accident, code the lowest numbered vehicle in the left columns and the other involved vehicle or object on the right.</small>							
Accident Event Sequence Number	Vehicle Number	Class Of Vehicle	General Area of Damage	Vehicle Number or Object Contacted	Class Of Vehicle	General Area of Damage	
12. <u>01</u>	13. <u>01</u>	14. <u>01</u>	15. <u>R</u>	16. <u>02</u>	17. <u>01</u>	18. <u>L</u>	
19. <u>02</u>	20. <u>01</u>	21. <u>01</u>	22. <u>R</u>	23. <u>60</u>	24. <u>00</u>	25. <u>0</u>	
26. <u>03</u>	27. <u>02</u>	28. <u>01</u>	29. <u>R</u>	30. <u>60</u>	31. <u>00</u>	32. <u>0</u>	
33. <u>04</u>	34. <u>01</u>	35. <u>01</u>	36. <u>T</u>	37. <u>31</u>	38. <u>00</u>	39. <u>N</u>	
40. <u>05</u>	41. <u>02</u>	42. <u>01</u>	43. <u>I</u>	44. <u>31</u>	45. <u>00</u>	46. <u>N</u>	
<b>IF GREATER THAN FIVE EVENTS, CONTINUE CODING ON THE ACCIDENT EVENT SUPPLEMENT</b>							

**Appendix D:**

**NASS Vehicle Forms: Case Vehicle**



U.S. Department of Transportation  
National Highway Traffic Safety  
Administration

# GENERAL VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number 10  
2. Case Number - Stratum 9307  
3. Vehicle Number 01

## VEHICLE IDENTIFICATION

4. Vehicle Model Year 90  
Code the last two digits of the model year  
(99) Unknown  
5. Vehicle Make (specify): 07  
DODGE  
Applicable codes are found in your  
NASS Data Collection, Coding and  
Editing Manual.  
(99) Unknown  
6. Vehicle Model (specify): 015  
DAYTONA  
Applicable codes are found in your  
NASS Data Collection, Coding and  
Editing Manual.  
(99) Unknown  
7. Body Type 03  
Note: Applicable codes may be found on  
the back of this page.  
8. Vehicle Identification Number  
B3XG44K2 [REDACTED]  
Left justify; Slash zeros and letter Z (0 and Z)  
No VIN—Code all zeros  
Unknown—Code all nine's

## OFFICIAL RECORDS

9. Police Reported Vehicle Disposition 1  
(0) Not towed due to vehicle damage  
(1) Towed due to vehicle damage  
(9) Unknown  
10. Police Reported Travel Speed 999  
Code to the nearest kph (NOTE: 000 means  
less than 0.5 kph)  
(160) 159.5 kph and above  
(999) Unknown  
\_\_\_\_ mph X 1.6093 = \_\_\_\_ kph

11. Police Reported Alcohol Presence 1  
(0) No alcohol present  
(1) Yes (alcohol present)  
(7) Not reported  
(8) No driver present  
(9) Unknown

Note: See variables 37 through 55  
(Page 4) for information on Other Drugs

12. Alcohol Test Result For Driver 25  
Code actual value (decimal implied  
before first digit—0.xx)  
(95) Test refused  
(96) None given  
(97) AC test performed, results unknown  
(98) No driver present  
(99) Unknown

Source: [REDACTED]

## ACCIDENT RELATED

13. Speed Limit 089  
(000) No statutory limit  
Code posted or statutory speed limit  
in kph  
(999) Unknown  
55 mph X 1.6093 = 88.5 kph  
14. Attempted Avoidance Maneuver 06  
(00) No impact  
(01) No avoidance actions  
(02) Braking (no lockup)  
(03) Braking (lockup)  
(04) Braking (lockup unknown)  
(05) Releasing brakes  
(06) Steering left  
(07) Steering right  
(08) Braking and steering left  
(09) Braking and steering right  
(10) Accelerating  
(11) Accelerating and steering left  
(12) Accelerating and steering right  
(97) No driver present  
(98) Other action (specify):  
(99) Unknown  
15. Accident Type 88  
Applicable codes may be found on the  
back of page two of this field form  
(00) No impact  
Code the number of the diagram that  
best describes the accident circumstance  
(98) Other accident type (specify):  
(99) Unknown

\*\*\*\* SKIP TO VARIABLE GV37 IF GV07 DOES NOT EQUAL 01-49 \*\*\*\*

## OCCUPANT RELATED

16. Driver Presence in Vehicle 1  
 (0) Driver not present  
 (1) Driver present  
 (9) Unknown
17. Number of Occupants This Vehicle 01  
 (00-96) Code actual number of occupants for this vehicle  
 (97) 97 or more  
 (99) Unknown
18. Number of Occupant Forms Submitted 01

## VEHICLE WEIGHT ITEMS

19. Vehicle Curb Weight 1250  
 Code weight to nearest 10 kilograms.  
 (045) Less than 450 kilograms  
 (610) 6,100 kilograms or more  
 (999) Unknown  
2751 lbs X .4536 = 1248 kgs  
 Source: [REDACTED]
20. Vehicle Cargo Weight 0000  
 Code weight to nearest 10 kilograms.  
 (000) Less than 5 kilograms  
 (450) 4,500 kilograms or more  
 (999) Unknown  
 \_\_\_\_\_ lbs X .4536 = \_\_\_\_\_ kgs

## RECONSTRUCTION DATA

21. Towed Trailing Unit 0  
 (0) No towed unit  
 (1) Yes—towed trailing unit  
 (9) Unknown
22. Documentation of Trajectory Data for This Vehicle 1  
 (0) No  
 (1) Yes
23. Post Collision Condition of Tree or Pole (For Highest Delta V) 0  
 (0) Not collision (for highest delta V) with tree or pole  
 (1) Not damaged  
 (2) Cracked/sheared  
 (3) Tilted <45 degrees  
 (4) Tilted ≥45 degrees  
 (5) Uprooted tree  
 (6) Separated pole from base  
 (7) Pole replaced  
 (8) Other (specify): \_\_\_\_\_  
 (9) Unknown

24. Rollover 2  
 (0) No rollover (no overturning)  
*Rollover (primarily about the longitudinal axis)*  
 (1) Rollover, 1 quarter turn only  
 (2) Rollover, 2 quarter turns  
 (3) Rollover, 3 quarter turns  
 (4) Rollover, 4 or more quarter turns (specify): \_\_\_\_\_  
 (5) Rollover—end-over-end (i.e., primarily about the lateral axis)  
 (9) Rollover (overturn), details unknown

## OVERRIDE/UNDERRIDE (THIS VEHICLE)

25. Front Override/Underride (this Vehicle) 0
26. Rear Override/Underride (this Vehicle) 0  
 (0) No override/underride, or not an end-to-end impact  
*Override (see specific CDC)*  
 (1) 1st CDC  
 (2) 2nd CDC  
 (3) Other not automated CDC (specify): \_\_\_\_\_  
*Underride (see specific CDC)*  
 (4) 1st CDC  
 (5) 2nd CDC  
 (6) Other not automated CDC (specify): \_\_\_\_\_  
 (7) Medium/heavy truck or bus override  
 (9) Unknown

## HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V

Values: (000)-(359) Code actual value  
 (997) Noncollision  
 (998) Impact with object  
 (999) Unknown

27. Heading Angle For This Vehicle 350
28. Heading Angle For Other Vehicle 320

29. Basis for Total Delta V (highest) 6*Delta V Calculated*

- (1) CRASH program—damage only routine
- (2) CRASH program—damage and trajectory routine
- (3) Missing vehicle algorithm

*Delta V Not Calculated*

- (4) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.
- (5) All vehicles within scope (CDC applicable) of CRASH program but one of the collision conditions is beyond the scope of the CRASH program or other acceptable reconstruction technique, regardless of adequacy of damage data.
- (6) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available.

**COMPUTER GENERATED DELTA V**

## 30. Total Delta V

Secondary Highest

9 9 9

\_\_\_\_ Nearest kph \_\_\_\_\_

(NOTE: 000 means less than  
0.5 kph)  
(160) 159.5 kph and above  
(999) Unknown

## 31. Longitudinal Component of Delta V

+  
- 9 9 9

\_\_\_\_ Nearest kph \_\_\_\_\_

(NOTE: \_\_000 means greater than  
-0.5 kph and less than +0.5 kph)  
(±160) ±159.5 kph and above  
(\_\_999) Unknown

Secondary Highest  
+  
32. Lateral Component of Delta V - 9 9 9

\_\_\_\_ Nearest kph \_\_\_\_\_

(NOTE: \_\_000 means greater than  
-0.5 kph and less than +0.5 kph)  
(±160) ±159.5 kph and above  
(\_\_999) Unknown

## 33. Energy Absorption

9 9 9 9 0 0

\_\_\_\_ Nearest 100 joules \_\_\_\_\_

(NOTE: 0000 means less than 50 joules)  
(9997) 999,650 joules or more  
(9999) Unknown

## 34. Confidence In Reconstruction Program Results (For Highest Delta V)

- (0) No reconstruction
- (1) Collision fits model — results appear reasonable
- (2) Collision fits model — results appear high
- (3) Collision fits model — results appear low
- (4) Borderline reconstruction — results appear reasonable

0

## 35. Type of Vehicle Inspection

- (0) No inspection
- (1) Complete inspection
- (2) Partial inspection (specify): \_\_\_\_\_

1

## 36. Is this an AOPS Vehicle?

- (0) No
- (1) Yes - researcher determined
- (2) VIN determined air bag system
- (3) VIN determined automatic (passive) belts
- (4) VIN determined air bag and automatic (passive) belts

1IS OLDMISS APPLICABLE FOR THIS VEHICLE? [ ] YES [ ☒ ] NO

IF YES: IS A COMPLETED OLDMISS PROGRAM SUMMARY INCLUDED? [ ] YES [ ] NO

37. Police Reported Other Drug Presence 0

- (0) No other drugs present
- (1) Yes (other drug present)
- (7) Not reported
- (8) No driver present
- (9) Unknown

38. Police Reported Drug Evaluation Classification (DEC) Test For Driver 0

- (0) No DEC process available or given
- (1) DEC process given, results known
- (2) DEC process given, results unknown
- (3) DEC process available, unknown if given
- (8) No driver present

39. Other Drug Specimen Test Type For Driver 1

- (0) No specimen test given
- (1) Blood test
- (2) Urine test
- (3) Other specimen tests (specify):  
\_\_\_\_\_
- (7) Unspecified specimen test
- (8) No driver present
- (9) Unknown if specimen test given

### DRUG EVALUATION CLASSIFICATION

#### OTHER DRUGS TEST RESULTS FOR DRIVER

	DEC Test Results	Specimen Test Results
Narcotic Drug	40. <u>0</u>	41. <u>7</u>
Depressant Drug	42. <u>0</u>	43. <u>7</u>
Stimulant Drug	44. <u>0</u>	45. <u>7</u>
Hallucinogen Drug	46. <u>0</u>	47. <u>7</u>
Cannabinoid Drug	48. <u>0</u>	49. <u>7</u>
Phencyclidine (PCP)	50. <u>0</u>	51. <u>7</u>
Inhalant Drug	52. <u>0</u>	53. <u>7</u>
Other Drug (Excluding Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash)	54. <u>0</u>	55. <u>1</u>

## Codes For DEC Test Results

- (0) No DEC test given
- (1) Passed DEC test
- (2) Failed DEC test
- (3) DEC test given—results unknown
- (8) No driver present
- (9) Unknown if DEC test given

## Codes for Specimen Test Results

- (0) No specimen test given
- (1) Drug not found in specimen
- (2) Drug found in specimen
- (7) Specimen test given, results unknown or not obtained
- (8) No driver present
- (9) Unknown if specimen test given



**OTHER DATA****56. Driver's Zip Code**

- (00000) Driver not present  
 (00001) Driver not a resident of U.S. or territories  
 Code actual 5-digit zip code  
 (99999) Unknown

**57. Driver's Race/Ethnic Origin**

- (0) Driver not present  
 (1) White (non-Hispanic)  
 (2) Black (non-Hispanic)  
 (3) White (Hispanic)  
 (4) Black (Hispanic)  
 (5) American Indian, Eskimo or Aleut  
 (6) Asian or Pacific Islander  
 (8) Other (specify):  
 (9) Unknown

**58. Vehicle Special Use (This Trip)**

- (0) No special use  
 (1) Taxi  
 (2) Vehicle used as school bus  
 (3) Vehicle used as other bus  
 (4) Military  
 (5) Police  
 (6) Ambulance  
 (7) Fire truck or car  
 (8) Other (specify):  
 (9) Unknown

**61. Rollover Initiation Object Contacted****62. Location on Vehicle Where Initial Principal Tripping Force Is Applied**

- (0) No rollover  
 (1) Wheels/tires  
 (2) Side plane  
 (3) End plane  
 (4) Undercarriage  
 (5) Other location on vehicle (specify):  
 (8) Non-contact rollover forces (specify):  
 (9) Unknown

**63. Direction of Initial Roll**

- (0) No rollover  
 (1) Roll right - primarily about the longitudinal axis  
 (2) Roll left - primarily about the longitudinal axis  
 (5) End-over-end (i.e., primarily about the lateral axis)  
 (9) Unknown roll direction

**PRECRASH DATA****64. Pre-Event Movement (Prior to Recognition of Critical Event)**

- (01) Going straight  
 (02) Slowing or stopping in traffic lane  
 (03) Starting in traffic lane  
 (04) Stopped in traffic lane  
 (05) Passing or overtaking another vehicle  
 (06) Disabled or parked in travel lane  
 (07) Leaving a parking position  
 (08) Entering a parking position  
 (09) Turning right  
 (10) Turning left  
 (11) Making a U-turn  
 (12) Backing up (other than for parking position)  
 (13) Negotiating a curve  
 (14) Changing lanes  
 (15) Merging  
 (16) Successful avoidance maneuver to a previous critical event  
 (97) Other (specify):  
 (98) No driver present  
 (99) Unknown

**ROLLOVER DATA**

If GV07 (Body Type)  $\neq$  1-49, leave GV59-GV63 blank.  
 If GV24 (Rollover) = 0, then GV59-GV63 must equal 0.  
 If GV24 = 9, then GV59-GV63 must equal 9.

**59. Rollover Initiation Type**

- (0) No rollover  
 (1) Trip-over  
 (2) Flip-over  
 (3) Turn-over  
 (4) Climb-over  
 (5) Fall-over  
 (6) Bounce-over  
 (7) Collision with another vehicle  
 (8) Other rollover initiation type (specify):  
 (9) Unknown rollover initiation type

**60. Location of Rollover Initiation**

- (0) No rollover  
 (1) On roadway  
 (2) On shoulder—paved  
 (3) On shoulder—unpaved  
 (4) On roadside or divided trafficway median  
 (9) Unknown

## PRECRASH DATA (Continued)

65. Critical Precrash Event 1 7*This Vehicle Loss of Control Due To:*

- (01) Blow out or flat tire
- (02) Stalled engine
- (03) Disabling vehicle failure (e.g., wheel fell off) (specify): \_\_\_\_\_
- (04) Non-disabling vehicle problem (e.g., hood flew up) (specify): \_\_\_\_\_
- (05) Poor road conditions (puddle, pot hole, ice, etc.) (specify): \_\_\_\_\_
- (06) Traveling too fast for conditions
- (08) Other cause of control loss (specify): \_\_\_\_\_
- (09) Unknown cause of control loss

*This Vehicle Traveling*

- (10) Over the lane line on left side of travel lane
- (11) Over the lane line on right side of travel lane
- (12) Off the edge of the road on the left side
- (13) Off the edge of the road on the right side
- (14) End departure
- (15) Turning left at intersection
- (16) Turning right at intersection
- (17) Crossing over (passing through) intersection
- (19) Unknown travel direction

*Other Motor Vehicle In Lane*

- (50) Stopped
- (51) Traveling in same direction with lower speed (i.e., lower steady speed or decelerating)
- (52) Traveling in same direction with higher speed
- (53) Traveling in opposite direction
- (54) In crossover
- (55) Backing
- (59) Unknown travel direction of other motor vehicle in lane

*Other Motor Vehicle Encroaching Into Lane*

- (60) From adjacent lane (same direction)—over left lane line
- (61) From adjacent lane (same direction)—over right lane line
- (62) From opposite direction—over left lane line
- (63) From opposite direction—over right lane line
- (64) From parking lane
- (65) From crossing street, turning into same direction
- (66) From crossing street, across path
- (67) From crossing street, turning into opposite direction
- (68) From crossing street, intended path not known
- (70) From driveway, turning into same direction
- (71) From driveway, across path
- (72) From driveway, turning into opposite direction
- (73) From driveway, intended path not known
- (74) From entrance to limited access highway
- (78) Encroachment by other vehicle—details unknown

*Pedestrian or Pedalcyclist, or Other Nonmotorist*

- (80) Pedestrian in roadway
- (81) Pedestrian approaching roadway
- (82) Pedestrian - unknown location
- (83) Pedalcyclist or other nonmotorist in roadway (specify): \_\_\_\_\_
- (84) Pedalcyclist or other nonmotorist approaching roadway (specify): \_\_\_\_\_
- (85) Pedalcyclist or other nonmotorist—unknown location (specify): \_\_\_\_\_

*Object or Animal*

- (87) Animal in roadway
- (88) Animal approaching roadway
- (89) Animal—unknown location
- (90) Object in roadway
- (91) Object approaching roadway
- (92) Object—unknown location
- (98) Other critical precrash event (specify): \_\_\_\_\_
- (99) Unknown

For Corrective Actions Attempted see variable GV14  
(Attempted Avoidance Manuever)

66. Precrash Stability After Avoidance Manuever 1

- (0) No avoidance manuever
- (1) Tracking
- (2) Skidding longitudinally—rotation less than 30 degrees
- (3) Skidding laterally—clockwise rotation
- (4) Skidding laterally—counterclockwise rotation
- (7) Other vehicle loss-of-control (specify): \_\_\_\_\_
- (8) No driver present
- (9) Precrash stability unknown

67. Precrash Directional Consequences of Avoidance Manuever (Corrective Action) 1

- (0) No avoidance manuever
- (1) Vehicle stayed in travel lane where avoidance manuever was initiated
- (2) Vehicle stayed on roadway but left travel lane where avoidance manuever was initiated
- (3) Vehicle stayed on roadway, not known if left travel lane where avoidance manuever was initiated
- (4) Vehicle departed roadway
- (5) Avoidance manuever initiated off roadway
- (8) No driver present
- (9) Directional consequences unknown

\*\*\* IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV35 = 0), \*\*\*  
DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS.

\*\*\* IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE \*\*\*  
THE EXTERIOR VEHICLE, INTERIOR VEHICLE,  
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.



U.S. Department of Transportation  
National Highway Traffic Safety  
Administration

# EXTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

10

3. Vehicle Number

01

2. Case Number - Stratum

9307

## VEHICLE IDENTIFICATION

VIN 1B3XG44

Model Year 90

Vehicle Make (specify): Dodge

Vehicle Model (specify): DAYTONA

## LOCATOR

Locate the end of the damage with respect to the vehicle longitudinal center line or bumper corner for end impacts or an undamaged axle for side impacts.

Specific Impact No.	Location of Direct Damage	Location of Field L
<u>1</u>	<u>BEGINS @ BUMPER CORNER</u>	<u>BUMPER CORNER TO BUMPER CORNER</u>
<u>1A</u>	<u>BEGINS 176 FORWARD OF RR AXLE</u>	<u>195 FORWARD OF RR AXLE</u>
<u>2</u>	<u>RR BUMPER CORNER</u>	<u>RR BUMPER CORNER</u>

## CRUSH PROFILE IN CENTIMETERS

NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space).  
FRONT BASELINE SET @ 455cm OFF REAR BUMPER

Measure and document on the vehicle diagram the location of maximum crush.

Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts.

@ CORNER OF BUMPER FASCIA

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.

Use as many lines/columns as necessary to describe each damage profile.

Specific Impact Number	Plane of Impact C-Measurements	Direct Damage		Field L	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>	C <sub>5</sub>	C <sub>6</sub>	±D
		Width (CDC)	Max Crush								
<u>1A</u>	<u>TOP FRAME OF RADIATOR</u>	<u>26</u>		<u>129</u>	<u>48</u>	<u>35</u>	<u>26</u>	<u>23</u>	<u>26</u>	<u>37</u>	<u>+58</u>
	<u>FREE SPACE</u>				<u>-36</u>	<u>-32</u>	<u>-31</u>	<u>-31</u>	<u>-32</u>	<u>-36</u>	
	<u>ACTUAL CRUSH</u>				<u>12</u>	<u>3</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	
<u>1</u>	<u>FRAME OF FENDER</u>	<u>57</u>		<u>80</u>	<u>10</u>	<u>15</u>	<u>21</u>	<u>22</u>	<u>30</u>	<u>40</u>	<u>+130</u>
	<u>FREE SPACE</u>				<u>-10</u>	<u>-10.5</u>	<u>-11</u>	<u>-11</u>	<u>-12</u>	<u>-13</u>	
	<u>ACTUAL CRUSH</u>				<u>0</u>	<u>4.5</u>	<u>10</u>	<u>11</u>	<u>18</u>	<u>27</u>	
<u>2</u>	<u>@ QUARTER PANEL</u>	<u>114</u>		<u>114</u>	<u>0</u>	<u>9</u>	<u>6</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>-154</u>

WHEEL DAMAGE

# ORIGINAL SPECIFICATIONS WORK SHEET

Wheelbase		<u>  9  7  .</u> <u>  0  </u>	inches	x 2.54	=	<u>  2  4  </u> <u>  6  </u>	cm
Overall Length		<u>  1  7  9  .</u> <u>  2  </u>	inches	x 2.54	=	<u>  4  5  </u> <u>  5  </u>	cm
Maximum Width		<u>  6  9  .</u> <u>  3  </u>	inches	x 2.54	=	<u>  1  7  </u> <u>  6  </u>	cm
Curb Weight		<u>  2  ,</u> <u>  7  </u> <u>  5  </u> <u>  1  </u>	pounds	x .4536	=	<u>  1  ,</u> <u>  2  </u> <u>  4  </u> <u>  8  </u>	kg
Average Track		<u>  5  7  .</u> <u>  6  </u>	inches	x 2.54	=	<u>  1  4  </u> <u>  6  </u>	cm
Front Overhang	<u>  42.7  -</u> <u>  43.8  </u>	<u>      .</u> <u>      </u>	inches	x 2.54	=	<u>  1  1  </u> <u>  1  </u>	cm
Rear Overhang	<u>  38.4  -</u> <u>  38.7  </u>	<u>      .</u> <u>      </u>	inches	x 2.54	=	<u>      </u> <u>  9  </u> <u>  8  </u>	cm
Undeformed End Width		<u>      .</u> <u>      </u>	inches	x 2.54	=	<u>  1  4  </u> <u>  2  </u>	cm
Engine Size: cyl./displ.		<u>      </u> <u>      </u> <u>      </u>	cc	x .001	=	<u>      </u> <u>      </u>	L
		<u>      </u> <u>      </u> <u>      </u>	CID	x .0164	=	<u>  2  .</u> <u>  5  </u>	L

## VEHICLE DAMAGE SKETCH

## TIRE—WHEEL DAMAGE

a. Rotation physically restricted

b. Tire deflated

RF 2  
LF 1  
RR 1  
LR 2RF 1  
LF 1  
RR 1  
LR 2

(1) Yes (2) No (8) NA (9) Unk.

## TYPE OF TRANSMISSION

☐ Manual☒ Automatic

## ORIGINAL SPECIFICATIONS

Wheelbase 246 cm  
 Overall Length 455 cm  
 Maximum Width 176 cm  
 Curb Weight 1248 kg  
 Average Track 146 cm  
 Front Overhang \_\_\_\_\_ cm  
 Rear Overhang \_\_\_\_\_ cm  
 Undeformed End Width 142 cm  
 Engine Size: cyl./displ. 2.5EFI L

WHEEL STEER ANGLES  
(For locked front wheels or displaced rear axles only)

RF 3 °  
 LF 2 °  
 RR 0 °  
 LR 0 °

Within ± 5 degrees

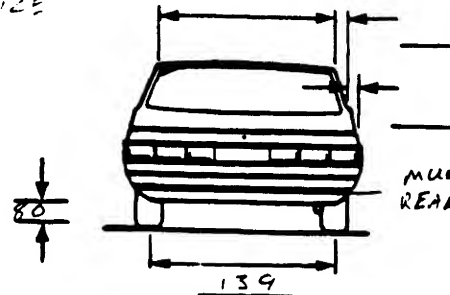
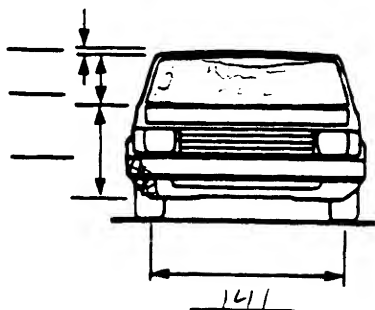
## DRIVE WHEELS

☒ FWD ☐ RWD ☐ 4WD

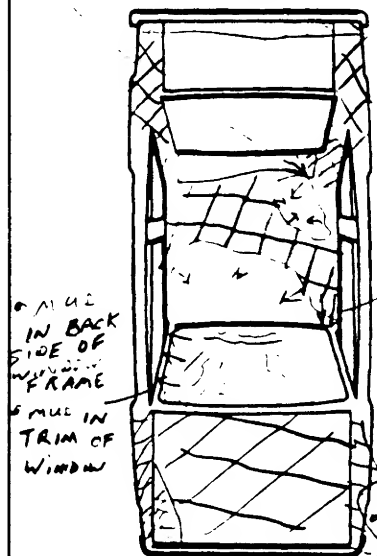
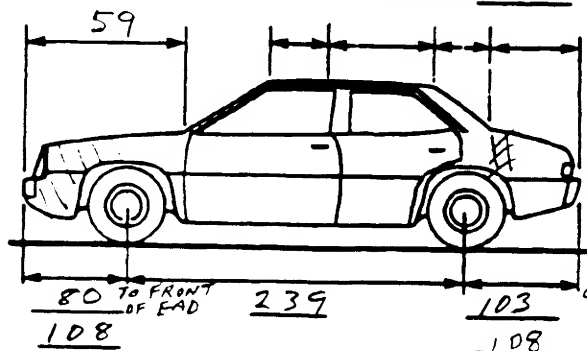
Approximate Cargo Weight \_\_\_\_\_ kg

## MEASUREMENTS IN CENTIMETERS

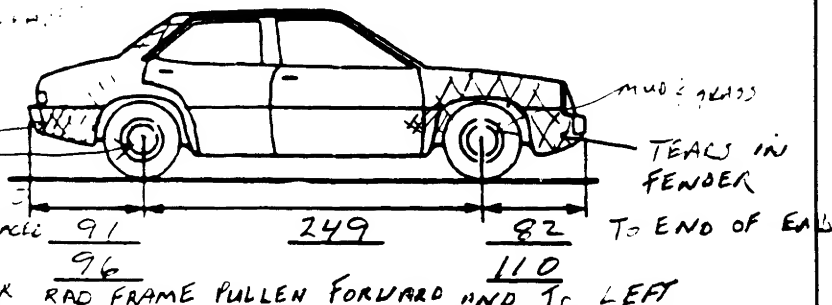
REAR LIGHTS BROKEN  
 out BY POLICE



GRASS IN SEAM BETWEEN  
 HATCH AND ROOF



GRASS IN SEAM  
 BETWEEN HATCH  
 AND ROOF



NOTES: Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewalls, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.

Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.



## National Accident Sampling System-Crashworthiness Data System: Exterior Vehicle Form

Page 4

## COLLISION DEFORMATION CLASSIFICATION

## HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Longitudinal or Lateral Location	(5) Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. <u>01</u>	5. <u>02</u>	6. <u>04</u>	7. <u>R</u>	8. <u>Y</u>	9. <u>E</u>	10. <u>W</u>	11. <u>03</u>

## Second Highest Delta "V"

12. <u>02</u>	13. <u>60</u>	14. <u>00</u>	15. <u>R</u>	16. <u>B</u>	17. <u>E</u>	18. <u>W</u>	19. <u>02</u>
---------------	---------------	---------------	--------------	--------------	--------------	--------------	---------------

## CRUSH PROFILE IN CENTIMETERS

The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. (ALL MEASUREMENTS ARE IN CENTIMETERS.)

## HIGHEST DELTA "V"

20. L	21. C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>	C <sub>5</sub>	C <sub>6</sub>	22. ±D
<u>80</u>	<u>000</u>	<u>005</u>	<u>010</u>	<u>011</u>	<u>018</u>	<u>027</u>	<u><sup>+</sup>130</u>

## Second Highest Delta "V"

23. L	24. C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>	C <sub>5</sub>	C <sub>6</sub>	25. ±D
<u>118</u>	<u>000</u>	<u>009</u>	<u>006</u>	<u>000</u>	<u>000</u>	<u>000</u>	<u><sup>+</sup>154</u>

26. Are CDCs Documented but Not Coded on The Automated File?  
(0) No  
(1) Yes

1

27. Researcher's Assessment of Vehicle Disposition  
(0) Not towed due to vehicle damage  
(1) Towed due to vehicle damage  
(9) Unknown

1

28. Original Wheelbase 246  
Code to the nearest centimeter  
(999) Unknown

97.0 inches X 2.54 = 246 centimeters

29. Is This A Multi-Stage Manufactured Vehicle  
And/Or A Certified Altered Vehicle?

0

(0) No post manufacturer modifications

(1) Yes - post manufacturer modifications  
(specify): \_\_\_\_\_

\_\_\_\_\_  
(Include photograph of CERTIFICATION  
PLACARD in case report)

(9) Unknown if vehicle is modified

30. Fire Occurrence

0

(0) No fire

Yes, fire occurred

(1) Minor

(2) Major

(9) Unknown

31. Origin of Fire

0

(0) No fire

(1) Vehicle exterior (front, side, back, top)

(2) Exhaust system

(3) Fuel tank (and other fuel retention  
system parts)

(4) Engine compartment

(5) Cargo/trunk compartment

(6) Instrument panel

(7) Passenger compartment area

(8) Other location (specify): \_\_\_\_\_

(9) Unknown

32. Type of Fuel Tank

1

(0) No fuel tank (electrical vehicle)

(1) Metallic

(2) Non-metallic

(9) Unknown

\*\*\* STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT TOWED AND WAS NOT AN AOPS \*\*\*  
(I.E., GV09 = 0 OR 9 AND GV36 = 0), DO NOT COMPLETE THE INTERIOR VEHICLE FORM.





U.S. Department of Transportation  
National Highway Traffic Safety  
Administration

# INTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number 10  
2. Case Number - Stratum 9307  
3. Vehicle Number 01

## INTEGRITY

4. Passenger Compartment Integrity 11  
(00) No integrity loss

Yes, Integrity Was Lost Through

- (01) Windshield
- (02) Door (side)
- (03) Door/hatch (back door)
- (04) Roof
- (05) Roof glass
- (06) Side window
- (07) Rear window (backlight)
- (08) Roof and roof glass
- (09) Windshield and door (side)
- (10) Windshield and roof
- (11) Side and rear window (side window and backlight)
- (12) Windshield and side window
- (13) Door and side window
- (98) Other combination of above (specify):

(99) Unknown

## Door, Tailgate or Hatch Opening

5. LF 1 6. RF 1 7. LR 0 8. RR 0 9. TG/H 9

- (0) No door/gate/hatch
- (1) Door/gate/hatch remained closed and operational
- (2) Door/gate/hatch came open during collision
- (3) Door/gate/hatch jammed shut
- (8) Other (specify):

(9) Unknown

*UNKNOWN IF TRUCK DAMAGED  
SHUT OR WILL OPEN*

## Damage/Failure Associated with Door, Tailgate or Hatch Opening in Collision. If IV05-IV09 ≠ 2, Then code 0

10. LF 0 11. RF 0 12. LR 0 13. RR 0 14. TG/H 0

- (0) No door/gate/hatch or door not opened

Door, Tailgate or Hatch Came Open During Collision

- (1) Door operational (no damage)
- (2) Latch/striker failure due to damage
- (3) Hinge failure due to damage
- (4) Door structure failure due to damage
- (5) Door support (i.e., pillar, sill, roof side rail, etc.) failure due to damage
- (6) Latch/striker and hinge failure due to damage
- (8) Other failure (specify):

(9) Unknown

## GLAZING

### Glazing Damage from Impact Forces

15. WS 2 16. LF 6 17. RF 0 18. LR 0 19. RR 0  
20. BL 0 21. Roof 8 22. Other 8

- (0) No glazing damage from impact forces
- (2) Glazing in place and cracked from impact forces
- (3) Glazing in place and holed from impact forces
- (4) Glazing out-of-place (cracked or not) and not holed from impact forces
- (5) Glazing out-of-place and holed from impact forces
- (6) Glazing disintegrated from impact forces
- (7) Glazing removed prior to accident
- (8) No glazing
- (9) Unknown if damaged

*LF in up position  
GLASS IN TOP OF TRUCK*

### Glazing Damage from Occupant Contact

23. WS 0 24. LF 0 25. RF 0 26. LR 0 27. RR 0  
28. BL 6 29. Roof 0 30. Other 0

- (0) No occupant contact to glazing or no glazing
- (1) Glazing contacted by occupant but no glazing damage
- (2) Glazing in place and cracked by occupant contact
- (3) Glazing in place and holed by occupant contact
- (4) Glazing out-of-place (cracked or not) by occupant contact and not holed by occupant contact
- (5) Glazing out-of-place by occupant contact and holed by occupant contact
- (6) Glazing disintegrated by occupant contact
- (9) Unknown if contacted by occupant

If No Glazing Damage *And* No Occupant Contact or No Glazing, Then Code IV31 Through IV46 As 0

### Type of Window/Windshield Glazing

31. WS 1 32. LF 2 33. RF 0 34. LR 0 35. RR 0  
36. BL 2 37. Roof 0 38. Other 0

- (0) No glazing contact and no damage, or no glazing
- (1) AS-1 - Laminated
- (2) AS-2 - Tempered
- (3) AS-3 - Tempered-tinted
- (4) AS-14 - Glass/Plastic
- (8) Other (specify):

(9) Unknown

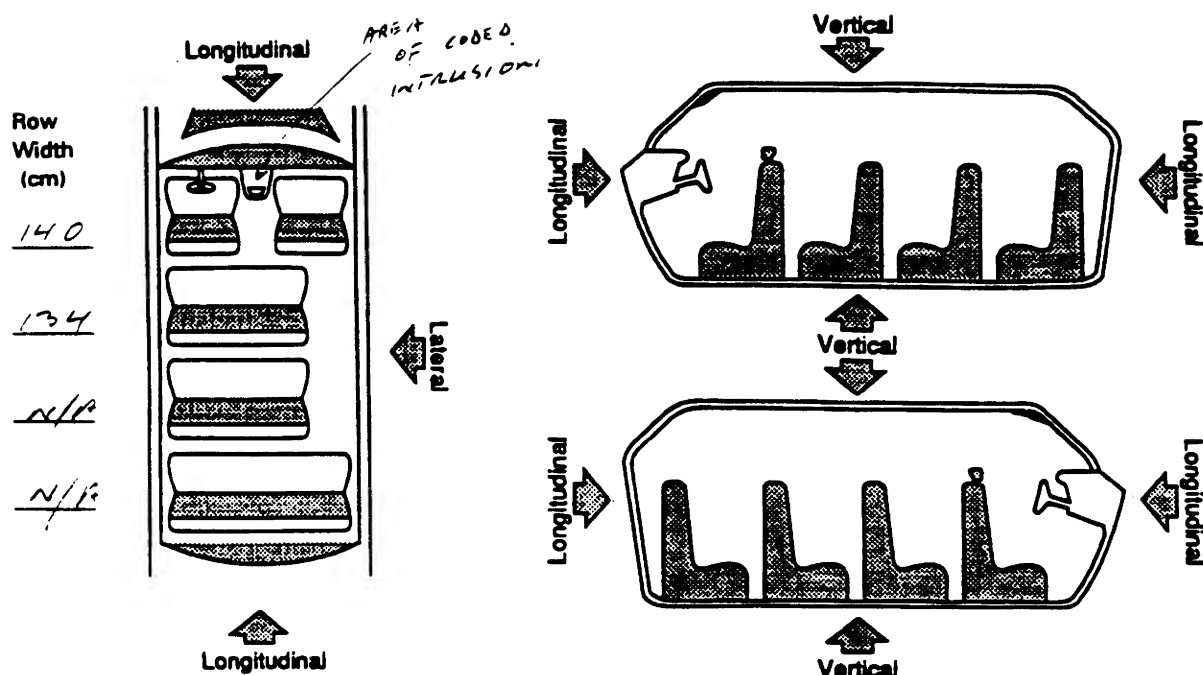
### Window Precrash Glazing Status

39. WS 1 40. LF 2 41. RF 0 42. LR 0 43. RR 0  
44. BL 1 45. Roof 0 46. Other 0

- (0) No glazing contact and no damage, or no glazing
- (1) Fixed
- (2) Closed
- (3) Partially opened
- (4) Fully opened
- (9) Unknown

## INTRUSION WORKSHEET

Note: Sketch intruded areas



LOCATION OF INTRUSION	INTRUDED COMPONENT	(All Measurements Are in Centimeters)				DOMINANT CRUSH DIRECTION
		COMPARISON VALUE	-	INTRUDED VALUE	=	INTRUSION
11	ROOF	34	-	33.5	=	.5
11	W/S HEADER	33	-	32.5	=	.5
11	WINDSHIELD	35	-	34.5	=	.5
12	ROOF	34	-	31	=	3
12	W/S HEADER	33	-	30	=	3
12	WINDSHIELD	35	-	33	=	2
13	ROOF	CLEARLY < 3cm				
13	W/S HEADER	-	-	-	=	
13	WINDSHIELD	-	-	-	=	
21	ROOF	-	-	-	=	
21	ROOF SIDE RAIL	-	-	-	=	
21	BACKLIGHT HEADER	-	-	✓	=	
22	" "	-	-	-	=	
		-	-	-	=	
		-	-	-	=	

Document no more than the 15 most severe intrusions

## OCCUPANT AREA INTRUSION

Note: If no intrusions, leave variables IV47-IV86 blank.

	Location of Intrusion	Intruding Component	Magnitude of Intrusion	Dominant Crush Direction
1st	47. <u>1</u> <u>2</u>	48. <u>1</u> <u>2</u>	49. <u>1</u>	50. <u>1</u>
2nd	51. <u>1</u> <u>2</u>	52. <u>1</u> <u>5</u>	53. <u>1</u>	54. <u>1</u>
3rd	55. _____	56. _____	57. _____	58. _____
4th	59. _____	60. _____	61. _____	62. _____
5th	63. _____	64. _____	65. _____	66. _____
6th	67. _____	68. _____	69. _____	70. _____
7th	71. _____	72. _____	73. _____	74. _____
8th	75. _____	76. _____	77. _____	78. _____
9th	79. _____	80. _____	81. _____	82. _____
10th	83. _____	84. _____	85. _____	86. _____

## LOCATION OF INTRUSION

Front Seat  
 (11) Left  
 (12) Middle  
 (13) Right

Second Seat  
 (21) Left  
 (22) Middle  
 (23) Right

Third Seat  
 (31) Left  
 (32) Middle  
 (33) Right

Fourth Seat  
 (41) Left  
 (42) Middle  
 (43) Right

(97) Catastrophic  
 (98) Other enclosed area (specify)

(99) Unknown

## INTRUDING COMPONENT

## Interior Components

- (01) Steering assembly
- (02) Instrument panel left
- (03) Instrument panel center
- (04) Instrument panel right
- (05) Toe pan
- (06) A (A1/A2)-pillar
- (07) B-pillar
- (08) C-pillar
- (09) D-pillar
- (10) Door panel (side)
- (12) Roof (or convertible top)
- (13) Roof side rail
- (14) Windshield
- (15) Windshield header
- (16) Window frame
- (17) Floor pan (includes sill)
- (18) Backlight header
- (19) Front seat back
- (20) Second seat back
- (21) Third seat back
- (22) Fourth seat back
- (23) Fifth seat back
- (24) Seat cushion
- (25) Back door/panel (e.g., tailgate)
- (26) Other interior component (specify):

- (27) Side panel - forward of the A (A2)-pillar
- (28) Side panel - rear of the A (A2)-pillar

## Exterior Components

- (30) Hood
- (31) Outside surface of this vehicle (specify):
- (32) Other exterior object in the environment (specify):
- (33) Unknown exterior object
- (97) Catastrophic
- (98) Intrusion of unlisted component(s) (specify):
- (99) Unknown

## MAGNITUDE OF INTRUSION

- (1)  $\geq 3$  centimeters but  $< 8$  centimeters
- (2)  $\geq 8$  centimeters but  $< 15$  centimeters
- (3)  $\geq 15$  centimeters but  $< 30$  centimeters
- (4)  $\geq 30$  centimeters but  $< 46$  centimeters
- (5)  $\geq 46$  centimeters but  $< 61$  centimeters
- (6)  $\geq 61$  centimeters
- (7) Catastrophic
- (9) Unknown

## DOMINANT CRUSH DIRECTION

- (1) Vertical
- (2) Longitudinal
- (3) Lateral
- (7) Catastrophic
- (9) Unknown

## STEERING RIM/SPOKE DEFORMATION

(All Measurements Are in Centimeters)

COMPARISON VALUE	—	DAMAGE VALUE	=	DEFORMATION
------------------	---	--------------	---	-------------

	—		=	
--	---	--	---	--

	—		=	
--	---	--	---	--

	—		=	
--	---	--	---	--

	—		=	
--	---	--	---	--

NO APPARENT DAMAGE

## National Accident Sampling System-Crashworthiness Data System: Interior Vehicle Form

Page 3

## STEERING COLUMN

87. Steering Column Type 2

- (1) Fixed column  
 (2) Tilt column  
 (3) Telescoping column  
 (4) Tilt and telescoping column  
 (8) Other column type (specify):

(9) Unknown

*TILTED TO LOWEST POSITION*88. Blank X X

(This variable is left blank so that numbering consistency can be maintained with the 1988-93 CDS.

89. Blank X X X

(This variable is left blank so that numbering consistency can be maintained with the 1988-93 CDS.

90. Blank X X X

(This variable is left blank so that numbering consistency can be maintained with the 1988-93 CDS.

91. Blank X X X

(This variable is left blank so that numbering consistency can be maintained with the 1988-93 CDS.

92. Steering Rim/Spoke Deformation 00

- Code actual measured deformation to the nearest centimeter  
 (00) No steering rim deformation  
 (01-14) Actual measured value in centimeters  
 (15) 15 centimeters or more  
 (98) Observed deformation cannot be measured  
 (99) Unknown

93. Location of Steering Rim/Spoke Deformation 00

(00) No steering rim deformation

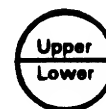
## Quarter Sections

- (01) Section A  
 (02) Section B  
 (03) Section C  
 (04) Section D



## Half Sections

- (05) Upper half of rim/spoke  
 (06) Lower half of rim/spoke  
 (07) Left half of rim/spoke  
 (08) Right half of rim/spoke



- (09) Complete steering wheel collapse  
 (10) Undetermined location  
 (99) Unknown *SW ROTATED CW ~ 120°*

## INSTRUMENT PANEL

## 94. Odometer Reading \_\_\_\_\_,000

\_\_\_\_\_ kilometers—Code to the nearest 1,000 kilometers

- (000) No odometer  
 (001) Less than 1,500 kilometers  
 (500) 499,500 kilometers or more  
 (999) Unknown

71,534 miles X 1.6093 = 115,120 kilometers

Source: INSPECTION95. Instrument Panel Damage from Occupant Contact? 9

- (0) No *PORTION OF CENTER IP MISSING*  
 (1) Yes  
 (9) Unknown

96. Knee Bolsters Deformed from Occupant Contact? 0

- (0) No  
 (1) Yes  
 (8) Not present  
 (9) Unknown

97. Did Glove Compartment Door Open During Collision(s)? 0

- (0) No  
 (1) Yes  
 (8) Not present  
 (9) Unknown

## VEHICLE INTERIOR SKETCHES

Note area of ejection/entrapment

NO EVIDENCE OF  
CONTACT TO  
IP WS EITHER  
DOORS OR A-PILLAR

HEADLINER  
REMOVED

DRIVER'S SEAT CENTERLY COVER, DRIVER'S  
DOOR W/ PANEL REMOVED FOR ANALYSIS OF  
POSSIBLE HAIR OR BLOOD - PER SEARCH  
WARRANT COPY FOUND IN CAR

DARK SCUFFS  
ON SEAT BACK

DRIVER'S VISOR FOUND  
ON DRIVER'S SIDE  
FLOOR, NO CONTACTS  
VISIBLE

OUTSIDE HINGE PIN SEPARATE,  
SEAT DISPLACED TO (R)  
SLIGHTLY

REAR SEAT BACKS  
BENT REARWARD, RL  
2ND BACK NAP CUT IN 2 SECTIONS  
RR SEAT BACK DISPLACED  
TO RIGHT SLIGHTLY

PASSENGER'S VISOR  
FOUND ON RF  
PASS FLOOR NO  
CONTACTS

MIRROR  
OFF

TRIM RR CORNER OF CARGO SIDE  
CRACKED, BACK PANEL POPPED OUT ON (L)  
SIDE. SCUFF ON (R) LOWER EDGE OF HATCH TRIM

Sketch windshield contact(s) and the damaged area(s) on the instrument panel outline (e.g., radio, glove compartment, damage to instrument panel structure.  
Cross hatch contact points, draw spider webs or use other annotation as may be appropriate.  
Annotate the contacted area with a letter (begin with A) and list on the Points of Occupant Contact page.

## National Accident Sampling System-Crashworthiness Data System: Interior Vehicle Form

Page 5

## POINTS OF OCCUPANT CONTACT

Contact	Interior Component Contacted	Occupant No. If Known	Body Region If Known	Supporting Physical Evidence	Confidence Level of Contact Point
A	40	1	Torso	SCUFFED AND DISPLACED REARWARD	1
B	62	1	POSSIBLE CHEST	SCUFFED AND CRACKED	1
C	60	1	POSSIBLE HEAD/NECK	BROKEN OUT	1
D	61	1	POSSIBLE CHEST OR SHOULDER	SCUFFED	2
E	12	?	?	GLOVEBOX DOOR ATAR	3
F	10	?	?	TRIM PANEL AROUND HEATER	3
G				AND RADIO MISSING.	
H					
I					
J					
K					
L					
M					
N					

## CODES FOR INTERIOR COMPONENTS

## FRONT

- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (16) Driver side air bag compartment cover
- (17) Passenger side air bag compartment cover
- (18) Windshield reinforced by exterior object (specify): \_\_\_\_\_
- (19) Other front object (specify): \_\_\_\_\_

## LEFT SIDE

- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A (A1/A2)-pillar

- (23) Left B-pillar

- (24) Other left pillar (specify): \_\_\_\_\_

- (25) Left side window glass or frame
- (26) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.

- (27) Other left side object (specify): \_\_\_\_\_

- (28) Left side window sill

## RIGHT SIDE

- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A (A1/A2)-pillar
- (33) Right B-pillar
- (34) Other right pillar (specify): \_\_\_\_\_
- (35) Right side window glass or frame
- (36) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B pillar, or roof side rail.
- (37) Other right side object (specify): \_\_\_\_\_
- (38) Right side window sill

## INTERIOR

- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-pillar attachment point
- (43) Other restraint system component (specify): \_\_\_\_\_
- (44) Head restraint system
- (45) Air bag (use codes "16" and "17" for injuries sustained from air bag compartment covers)

- (46) Other occupants (specify): \_\_\_\_\_

- (47) Interior loose objects

- (48) Child safety seat (specify): \_\_\_\_\_

- (49) Other interior object (specify): \_\_\_\_\_

## ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

## FLOOR

- (56) Floor (including toe pan)
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

## REAR

- (60) Backlight (rear window)
- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify): PLASTIC FASCIA ON REAR CORNER OF HATCH

## CONFIDENCE LEVEL OF CONTACT POINT

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

## AUTOMATIC RESTRAINTS

**NOTES:** Encode the data for each applicable front seat position. The attribute for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

### AIR BAGS

		Left	Right
FIRST	Availability/Function	1	0
	Deployment	4	0
	Failure	1	0

#### Air Bag System Availability/Function

- (0) Not equipped/not available  
(1) Air bag

#### Non-functional

- (2) Air bag disconnected (specify):  
\_\_\_\_\_  
(3) Air bag not reinstalled  
(9) Unknown

#### Air Bag System Deployment

- (0) Not equipped/not available  
(1) Air bag deployed during accident (as a result of impact)  
(2) Air bag deployed inadvertently just prior to accident  
(3) Air bag deployed, accident sequence undetermined  
(4) Nondeployed  
(5) Unknown if deployed  
(6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)  
(9) Unknown

#### Did Air Bag System Fail?

- (0) Not equipped/not available  
(1) No  
(2) Yes (specify):  
\_\_\_\_\_  
(9) Unknown

### AUTOMATIC BELTS

		Left	Right
FIRST	Availability/Function	/	/
	Use	/	/
	Type	/	/
	Proper Use	/	/
	Failure Modes	/	/

#### Automatic (Passive) Belt System Availability/Function

- (0) Not equipped/not available  
(1) 2 point automatic belts  
(2) 3 point automatic belts  
(3) Automatic belts - type unknown

#### Non-functional

- (4) Automatic belts destroyed or rendered inoperative  
(9) Unknown

#### Automatic (Passive) Belt System Use

- (0) Not equipped/not available/destroyed or rendered inoperative  
\* (1) Automatic belt in use  
(2) Automatic belt not in use (manually disconnected, motorized track inoperative)  
(3) Automatic belt use unknown  
(9) Unknown

#### Automatic (Passive) Belt System Type

- (0) Not equipped/not available  
(1) Non-motorized system  
(2) Motorized system  
(9) Unknown

#### Proper Use of Automatic (Passive) Belt System

- (0) Not equipped/not available/not used  
(1) Automatic belt used properly  
(2) Automatic belt used properly with child safety seat

#### Automatic Belt Used Improperly

- (3) Automatic shoulder belt worn under arm  
(4) Automatic shoulder belt worn behind back  
(5) Automatic belt worn around more than one person  
(6) Lap portion of automatic belt worn on abdomen  
(7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):  
\_\_\_\_\_  
(8) Other improper use of automatic belt system (specify):  
\_\_\_\_\_  
(9) Unknown

#### Automatic (Passive) Belt Failure Modes During Accident

- (0) Not equipped/not available/not in use  
(1) No automatic belt failure(s)  
(2) Torn webbing (stretched webbing not included)  
(3) Broken buckle or latchplate  
(4) Upper anchorage separated  
(5) Other anchorage separated (specify):  
\_\_\_\_\_  
(6) Broken retractor  
(7) Combination of above (specify):  
\_\_\_\_\_  
(8) Other automatic belt failure (specify):  
\_\_\_\_\_  
(9) Unknown



## National Accident Sampling System-Crashworthiness Data System: Interior Vehicle Form

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## MANUAL RESTRAINTS

**NOTES:** Encode the applicable data for each seat position in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

If a Child safety seat is present, encode the data on the back of this page.

If the vehicle has automatic restraints available, encode the appropriate data on the back of the previous page.

		Left	Center	Right
FIRST	Availability	* 4	0	4 **
	Use	00		00
	Failure Modes	0		0
SECOND	Availability	4	0	4
	Use	00		00
	Failure Modes	0		0
THIRD	Availability			
	Use			
	Failure Modes			
OTHER	Availability			
	Use			
	Failure Modes			

## Manual (Active) Belt System Availability

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available - type unknown

## Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)

(8) Other belt (specify):

(9) Unknown

## Manual (Active) Belt System Use

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperable (specify):
- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used - type unknown

## (08) Other belt used (specify):

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat - type unknown
- (18) Other belt used with child safety seat (specify):
- (99) Unknown if belt used

## Manual (Active) Belt Failure Modes During Accident

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):
- (6) Broken retractor
- (7) Combination of above (specify):
- (8) Other manual belt failure (specify):
- (9) Unknown

\* LATCH PLATE  
SHOW SIGNS OF  
USE. GUIDE  
LOOP AND LATCH  
PLATE GUIDE  
SHOW NO SIGNS  
OF WEARING

SCUFFING ON SEAT  
TO SEE AT  
SEAT - FRONT - EDGE  
OF SEAT

\*\* LATCH  
PLATE SHOWS  
LITTLE SIGNS  
OF USE

## CHILD SAFETY SEAT FIELD ASSESSMENT

When a child safety seat is present enter the occupant's number in the first row and complete the column below the occupant's number using the codes listed below. Complete a column for each child safety seat present.

Occupant Number						
1. Type of Child Safety Seat						
2. Child Safety Seat Orientation						
3. Child Safety Seat Harness Usage						
4. Child Safety Seat Shield Usage						
5. Child Safety Seat Tether Usage						
6. Child Safety Seat Make/Model	Specify Below for Each Child Safety Seat					

### 1. Type of Child Safety Seat

- (0) No child safety seat
- (1) Infant seat
- (2) Toddler seat
- (3) Convertible seat
- (4) Booster seat
- (7) Other type child safety seat (specify): \_\_\_\_\_
- (8) Unknown child safety seat type
- (9) Unknown if child safety seat used

### 2. Child Safety Seat Orientation

- (00) No child safety seat
- Designed for Rear Facing for This Age/Weight
- (01) Rear facing
- (02) Forward facing
- (08) Other orientation (specify): \_\_\_\_\_
- (09) Unknown orientation
- Designed for Forward Facing for This Age/Weight
- (11) Rear facing
- (12) Forward facing
- (18) Other orientation (specify): \_\_\_\_\_
- (19) Unknown orientation
- Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight
- (21) Rear facing
- (22) Forward facing
- (28) Other orientation (specify): \_\_\_\_\_
- (29) Unknown orientation
- (99) Unknown if child safety seat used

### 3. Child Safety Seat Harness Usage

### 4. Child Safety Seat Shield Usage

### 5. Child Safety Seat Tether Usage

Note: Options Below Are Used for Variables 3-5.

(00) No child safety seat

Not Designed with Harness/Shield/Tether

- (01) After market harness/shield/tether added, not used
- (02) After market harness/shield/tether used
- (03) Child safety seat used, but no after market harness/shield/tether added
- (09) Unknown if harness/shield/tether added or used

Designed With Harness/Shield/Tether

- (11) Harness/shield/tether not used
- (12) Harness/shield/tether used
- (19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether

- (21) Harness/shield/tether not used
- (22) Harness/shield/tether used
- (29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

### 6. Child Safety Seat Make/Model

(Specify make/model and occupant number)

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## HEAD RESTRAINTS/SEAT EVALUATION

NOTES: Encode the applicable data for each seat position in the vehicle. The attribute for these variables may be found at the bottom of the page. Head restraint type/damage and seat type/performance should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

		Left	Center	Right
FIRST	Head Restraint Type/Damage	SEAT HAS BEEN	0	3
	Seat Type	REMOVED BY	0	01
	Seat Performance	POLICE FOR	0	1
	Seat Orientation	FORENSIC ANALYSIS	0	1
SECOND	Head Restraint Type/Damage	0	NOT A DESIGNATED	0
	Seat Type	05	SEAT POSITION	05
	Seat Performance	5		5
	Seat Orientation	1		1
THIRD	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
	Seat Orientation			
OTHER	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
	Seat Orientation			

## Head Restraint Type/Damage by Occupant at This Occupant Position

- (0) No head restraints
- (1) Integral — no damage
- (2) Integral — damaged during accident
- (3) Adjustable — no damage
- (4) Adjustable — damaged during accident
- (5) Add-on — no damage
- (6) Add-on — damaged during accident
- (8) Other Specify: \_\_\_\_\_

(9) Unknown

## Seat Type (this Occupant Position)

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Other seat type (specify): \_\_\_\_\_

(10) Box mounted seat (i.e., van type)

(99) Unknown

## Seat Performance (this Occupant Position)

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed specify: \_\_\_\_\_
- (4) Seat tracks/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): \_\_\_\_\_

(7) Combination of above (specify): \_\_\_\_\_

(8) Other (specify): \_\_\_\_\_

(9) Unknown

## Seat Orientation (this Occupant Position)

- (0) Occupant not seated or no seat
- (1) Forward facing seat
- (2) Rear facing seat
- (3) Side facing seat (inward)
- (4) Side facing seat (outward)
- (8) Other (specify): \_\_\_\_\_

(9) Unknown

DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE (I.E., UNUSUAL OCCUPANT CONTACT PATTERN)

**EJECTION/ENTRAPMENT DATA**

Complete the following if the researcher has any indication that an occupant was either ejected from or entrapped in the vehicle. Code the appropriate data on the Occupant Assessment Form.

**EJECTION** No [ ] Yes [☒]

Describe indications of ejection and body parts involved in partial ejection(s):

REAR SEAT BACKS BENT REARWARD (2) HINGE ON  
L/R SEAT BACK SEPARATED PROBABLE OCCUPANT CONTACT  
(CRACKED PLASTIC TRIM) (2) REAR CORNER OF HATCH BACK

Occupant Number	11					
Ejection	1					
(Note on Vehicle Interior Sketch) Ejection Area	6					
Ejection Medium	3					
Medium Status	2					

**Ejection**

- (1) Complete ejection  
(1) Partial ejection  
(3) Ejection, Unknown degree  
(9) Unknown

**Ejection Area**

- (1) Windshield  
(2) Left front  
(3) Right front  
(4) Left rear  
(5) Right rear  
(6) Rear

**(7) Roof**

- (8) Other area (e.g., back of pickup, etc.) (specify):  
\_\_\_\_\_

**(9) Unknown****Ejection Medium**

- (1) Door/hatch/tailgate  
(2) Nonfixed roof structure  
(3) Fixed glazing  
(4) Nonfixed glazing (specify):  
\_\_\_\_\_

**(5) Integral structure****(8) Other medium (specify):****(9) Unknown****Medium Status (Immediately Prior to Impact)**

- (1) Open  
(2) Closed  
(3) Integral structure  
(9) Unknown

**ENTRAPMENT** No [ ] Yes [ ]

Describe entrapment mechanism: \_\_\_\_\_

Component(s): \_\_\_\_\_

(Note in vehicle interior diagram)

**Appendix E:**

**NASS Vehicle Forms: Vehicle #2**



## GENERAL VEHICLE FORM

1. Primary Sampling Unit Number 10  
2. Case Number - Stratum 9307  
3. Vehicle Number 02

### VEHICLE IDENTIFICATION

4. Vehicle Model Year 87  
Code the last two digits of the model year  
(99) Unknown  
5. Vehicle Make (specify): 22  
PONTIAC  
Applicable codes are found in your  
NASS Data Collection, Coding and  
Editing Manual.  
(99) Unknown

6. Vehicle Model (specify): 005  
FIELD GT COUPE  
Applicable codes are found in your  
NASS Data Collection, Coding and  
Editing Manual.  
(999) Unknown

7. Body Type 02  
Note: Applicable codes may be found on  
the back of this page.

8. Vehicle Identification Number

1G2FG119 [REDACTED]

Left justify; Slash zeros and letter Z (0 and Z)  
No VIN—Code all zeros  
Unknown—Code all nine's

### OFFICIAL RECORDS

9. Police Reported Vehicle Disposition 1  
(0) Not towed due to vehicle damage  
(1) Towed due to vehicle damage  
(9) Unknown  
10. Police Reported Travel Speed 999  
Code to the nearest kph (NOTE: 000 means  
less than 0.5 kph)  
(160) 159.5 kph and above  
(999) Unknown  
\_\_\_\_ mph X 1.6093 = \_\_\_\_ kph

11. Police Reported Alcohol Presence 0  
(0) No alcohol present  
(1) Yes (alcohol present)  
(7) Not reported  
(8) No driver present  
(9) Unknown

Note: See variables 37 through 55  
(Page 4) for information on Other Drugs

12. Alcohol Test Result For Driver 96  
Code actual value (decimal implied  
before first digit—0.xx)  
(95) Test refused  
(96) None given  
(97) AC test performed, results unknown  
(98) No driver present  
(99) Unknown

Source: PAR

### ACCIDENT RELATED

13. Speed Limit 089  
(000) No statutory limit  
Code posted or statutory speed limit  
in kph  
(999) Unknown

55 mph X 1.6093 = 88.5 kph

14. Attempted Avoidance Maneuver 07  
(00) No impact  
(01) No avoidance actions  
(02) Braking (no lockup)  
(03) Braking (lockup)  
(04) Braking (lockup unknown)  
(05) Releasing brakes  
(06) Steering left  
(07) Steering right  
(08) Braking and steering left  
(09) Braking and steering right  
(10) Accelerating  
(11) Accelerating and steering left  
(12) Accelerating and steering right  
(97) No driver present  
(98) Other action (specify):  
(99) Unknown

15. Accident Type 89  
Applicable codes may be found on the  
back of page two of this field form  
(00) No impact  
Code the number of the diagram that  
best describes the accident circumstance  
(98) Other accident type (specify):  
(99) Unknown

\*\*\*\* SKIP TO VARIABLE GV37 IF GV07 DOES NOT EQUAL 01-49 \*\*\*\*

## OCCUPANT RELATED

16. Driver Presence in Vehicle 1

- (0) Driver not present  
(1) Driver present  
(9) Unknown

17. Number of Occupants This Vehicle 01  
(00-96) Code actual number of occupants  
for this vehicle  
(97) 97 or more  
(99) Unknown

18. Number of Occupant Forms Submitted 01

## VEHICLE WEIGHT ITEMS

19. Vehicle Curb Weight 1,240  
Code weight to nearest  
10 kilograms.

- (045) Less than 450 kilograms  
(610) 6,100 kilograms or more  
(999) Unknown

\_\_\_\_\_ lbs X .4536 = 1,241 kgs

Source: \_\_\_\_\_

20. Vehicle Cargo Weight 9,990  
Code weight to nearest  
10 kilograms.

- (000) Less than 5 kilograms  
(450) 4,500 kilograms or more  
(999) Unknown

\_\_\_\_\_ lbs X .4536 = \_\_\_\_\_ kgs

## RECONSTRUCTION DATA

21. Towed Trailing Unit 0  
(0) No towed unit  
(1) Yes—towed trailing unit  
(9) Unknown

22. Documentation of Trajectory Data  
for This Vehicle 1  
(0) No  
(1) Yes

23. Post Collision Condition of Tree or Pole  
(For Highest Delta V) 0  
(0) Not collision (for highest delta V) with  
tree or pole  
(1) Not damaged  
(2) Cracked/sheared  
(3) Tilted <45 degrees  
(4) Tilted ≥45 degrees  
(5) Uprooted tree  
(6) Separated pole from base  
(7) Pole replaced  
(8) Other (specify): \_\_\_\_\_  
(9) Unknown

24. Rollover 4  
(0) No rollover (no overturning)

*Rollover (primarily about the longitudinal axis)*

- (1) Rollover, 1 quarter turn only  
(2) Rollover, 2 quarter turns  
(3) Rollover, 3 quarter turns  
(4) Rollover, 4 or more quarter turns (specify):  
4 QUARTER TURNS

- (5) Rollover--end-over-end (i.e., primarily  
about the lateral axis)  
(9) Rollover (overturn), details unknown

## OVERRIDE/UNDERRIDE (THIS VEHICLE)

25. Front Override/Underride (this Vehicle) 026. Rear Override/Underride (this Vehicle) 0

- (0) No override/underride, or  
not an end-to-end impact

*Override (see specific CDC)*

- (1) 1st CDC  
(2) 2nd CDC  
(3) Other not automated CDC (specify): \_\_\_\_\_

*Underride (see specific CDC)*

- (4) 1st CDC  
(5) 2nd CDC  
(6) Other not automated CDC (specify): \_\_\_\_\_

- (7) Medium/heavy truck or bus override  
(9) Unknown

HEADING ANGLE AT IMPACT FOR  
HIGHEST DELTA V

Values: (000)-(359) Code actual value  
(997) Noncollision  
(998) Impact with object  
(999) Unknown

27. Heading Angle For This Vehicle 32028. Heading Angle For Other Vehicle 350

29. Basis for Total Delta V (highest)

6*Delta V Calculated*

- (1) CRASH program—damage only routine
- (2) CRASH program—damage and trajectory routine
- (3) Missing vehicle algorithm

*Delta V Not Calculated*

- (4) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.
- (5) All vehicles within scope (CDC applicable) of CRASH program but one of the collision conditions is beyond the scope of the CRASH program or other acceptable reconstruction technique, regardless of adequacy of damage data.
- (6) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available.

**COMPUTER GENERATED DELTA V**

30. Total Delta V

Secondary Highest

9 9 9

\_\_\_\_ Nearest kph \_\_\_\_\_

(NOTE: 000 means less than  
0.5 kph)  
(160) 159.5 kph and above  
(999) Unknown

31. Longitudinal Component of  
Delta V+  
- 9 9 9

\_\_\_\_ Nearest kph \_\_\_\_\_

(NOTE: \_\_ 000 means greater than  
-0.5 kph and less than +0.5 kph)  
(± 160) ± 159.5 kph and above  
(\_\_ 999) Unknown

32. Lateral Component of Delta V

Secondary Highest

+

- 9 9 9

\_\_\_\_ Nearest kph \_\_\_\_\_

(NOTE: \_\_ 000 means greater than  
-0.5 kph and less than +0.5 kph)  
(± 160) ± 159.5 kph and above  
(\_\_ 999) Unknown

33. Energy Absorption

9 9 9 . 9 0 0

\_\_\_\_ Nearest 100 joules \_\_\_\_\_

(NOTE: 0000 means less than 50 joules)  
(9997) 999,650 joules or more  
(9999) Unknown

34. Confidence In Reconstruction Program  
Results (For Highest Delta V)

- (0) No reconstruction 0
- (1) Collision fits model — results appear reasonable
- (2) Collision fits model — results appear high
- (3) Collision fits model — results appear low
- (4) Borderline reconstruction — results appear reasonable

35. Type of Vehicle Inspection

- (0) No inspection 0
- (1) Complete inspection
- (2) Partial inspection (specify): \_\_\_\_\_

36. Is this an AOPS Vehicle?

- (0) No 0
- (1) Yes - researcher determined
- (2) VIN determined air bag system
- (3) VIN determined automatic (passive) belts
- (4) VIN determined air bag and automatic (passive) belts

IS OLDMISS APPLICABLE FOR THIS VEHICLE? [ ] YES [ ☒ ] NO

IF YES: IS A COMPLETED OLDMISS PROGRAM SUMMARY INCLUDED? [ ] YES [ ] NO



37. Police Reported Other Drug Presence 0

- (0) No other drugs present
- (1) Yes (other drug present)
- (7) Not reported
- (8) No driver present
- (9) Unknown

38. Police Reported Drug Evaluation Classification (DEC) Test For Driver 0

- (0) No DEC process available or given
- (1) DEC process given, results known
- (2) DEC process given, results unknown
- (3) DEC process available, unknown if given
- (8) No driver present

39. Other Drug Specimen Test Type For Driver 0

- (0) No specimen test given
- (1) Blood test
- (2) Urine test
- (3) Other specimen tests (specify):  
\_\_\_\_\_
- (7) Unspecified specimen test
- (8) No driver present
- (9) Unknown if specimen test given

### DRUG EVALUATION CLASSIFICATION

#### OTHER DRUGS TEST RESULTS FOR DRIVER

	DEC Test Results	Specimen Test Results
Narcotic Drug	40. <u>0</u>	41. <u>0</u>
Depressant Drug	42. <u>0</u>	43. <u>0</u>
Stimulant Drug	44. <u>0</u>	45. <u>0</u>
Hallucinogen Drug	46. <u>0</u>	47. <u>0</u>
Cannabinoid Drug	48. <u>0</u>	49. <u>0</u>
Phencyclidine (PCP)	50. <u>0</u>	51. <u>0</u>
Inhalant Drug	52. <u>0</u>	53. <u>0</u>
Other Drug (Excluding Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash)	54. <u>0</u>	55. <u>0</u>

## Codes For DEC Test Results

- (0) No DEC test given
- (1) Passed DEC test
- (2) Failed DEC test
- (3) DEC test given—results unknown
- (8) No driver present
- (9) Unknown if DEC test given

## Codes for Specimen Test Results

- (0) No specimen test given
- (1) Drug not found in specimen
- (2) Drug found in specimen
- (7) Specimen test given, results unknown or not obtained
- (8) No driver present
- (9) Unknown if specimen test given

## OTHER DATA

## 56. Driver's Zip Code

- (00000) Driver not present  
 (00001) Driver not a resident of U.S. or territories  
       Code actual 5-digit zip code  
 (99999) Unknown

## 57. Driver's Race/Ethnic Origin

- (0) Driver not present  
 (1) White (non-Hispanic)  
 (2) Black (non-Hispanic)  
 (3) White (Hispanic)  
 (4) Black (Hispanic)  
 (5) American Indian, Eskimo or Aleut  
 (6) Asian or Pacific Islander  
 (8) Other (specify):  
 (9) Unknown

## 58. Vehicle Special Use (This Trip)

- (0) No special use  
 (1) Taxi  
 (2) Vehicle used as school bus  
 (3) Vehicle used as other bus  
 (4) Military  
 (5) Police  
 (6) Ambulance  
 (7) Fire truck or car  
 (8) Other (specify):  
 (9) Unknown

## ROLLOVER DATA

If GV07 (Body Type)  $\neq$  1-49, leave GV59-GV63 blank.  
 If GV24 (Rollover) = 0, then GV59-GV63 must equal 0.  
 If GV24 = 9, then GV59-GV63 must equal 9.

## 59. Rollover Initiation Type

- (0) No rollover  
 (1) Trip-over  
 (2) Flip-over  
 (3) Turn-over  
 (4) Climb-over  
 (5) Fall-over  
 (6) Bounce-over  
 (7) Collision with another vehicle  
 (8) Other rollover initiation type specify:  
 (9) Unknown rollover initiation type

## 60. Location of Rollover Initiation

- (0) No rollover  
 (1) On roadway  
 (2) On shoulder—paved  
 (3) On shoulder—unpaved  
 (4) On roadside or divided trafficway median  
 (9) Unknown

## 61. Rollover Initiation Object Contacted

## 62. Location on Vehicle Where Initial Principal Tripping Force Is Applied

- (0) No rollover  
 (1) Wheels/tires  
 (2) Side plane  
 (3) End plane  
 (4) Undercarriage  
 (5) Other location on vehicle (specify):  
 (8) Non-contact rollover forces (specify):  
 (9) Unknown

## 63. Direction of Initial Roll

- (0) No rollover  
 (1) Roll right - primarily about the longitudinal axis  
 (2) Roll left - primarily about the longitudinal axis  
 (5) End-over-end (i.e., primarily about the lateral axis)  
 (9) Unknown roll direction

## PRECRASH DATA

## 64. Pre-Event Movement (Prior to Recognition of Critical Event)

- (01) Going straight  
 (02) Slowing or stopping in traffic lane  
 (03) Starting in traffic lane  
 (04) Stopped in traffic lane  
 (05) Passing or overtaking another vehicle  
 (06) Disabled or parked in travel lane  
 (07) Leaving a parking position  
 (08) Entering a parking position  
 (09) Turning right  
 (10) Turning left  
 (11) Making a U-turn  
 (12) Backing up (other than for parking position)  
 (13) Negotiating a curve  
 (14) Changing lanes  
 (15) Merging  
 (16) Successful avoidance maneuver to a previous critical event  
 (97) Other (specify):  
 (98) No driver present  
 (99) Unknown

## PRECRASH DATA (Continued)

65. Critical Precrash Event 66*This Vehicle Loss of Control Due To:*

- (01) Blow out or flat tire
- (02) Stalled engine
- (03) Disabling vehicle failure (e.g., wheel fell off) (specify): \_\_\_\_\_
- (04) Non-disabling vehicle problem (e.g., hood flew up) (specify): \_\_\_\_\_
- (05) Poor road conditions (puddle, pot hole, ice, etc.) (specify): \_\_\_\_\_
- (06) Traveling too fast for conditions
- (08) Other cause of control loss (specify): \_\_\_\_\_
- (09) Unknown cause of control loss

*This Vehicle Traveling*

- (10) Over the lane line on left side of travel lane
- (11) Over the lane line on right side of travel lane
- (12) Off the edge of the road on the left side
- (13) Off the edge of the road on the right side
- (14) End departure
- (15) Turning left at intersection
- (16) Turning right at intersection
- (17) Crossing over (passing through) intersection
- (19) Unknown travel direction

*Other Motor Vehicle In Lane*

- (50) Stopped
- (51) Traveling in same direction with lower speed (i.e., lower steady speed or decelerating)
- (52) Traveling in same direction with higher speed
- (53) Traveling in opposite direction
- (54) In crossover
- (55) Backing
- (59) Unknown travel direction of other motor vehicle in lane

*Other Motor Vehicle Encroaching Into Lane*

- (60) From adjacent lane (same direction)—over left lane line
- (61) From adjacent lane (same direction)—over right lane line
- (62) From opposite direction—over left lane line
- (63) From opposite direction—over right lane line
- (64) From parking lane
- (65) From crossing street, turning into same direction
- (66) From crossing street, across path
- (67) From crossing street, turning into opposite direction
- (68) From crossing street, intended path not known
- (70) From driveway, turning into same direction
- (71) From driveway, across path
- (72) From driveway, turning into opposite direction
- (73) From driveway, intended path not known
- (74) From entrance to limited access highway
- (78) Encroachment by other vehicle—details unknown

*Pedestrian or Pedalcyclist, or Other Nonmotorist*

- (80) Pedestrian in roadway
- (81) Pedestrian approaching roadway
- (82) Pedestrian - unknown location
- (83) Pedalcyclist or other nonmotorist in roadway (specify): \_\_\_\_\_
- (84) Pedalcyclist or other nonmotorist approaching roadway (specify): \_\_\_\_\_
- (85) Pedalcyclist or other nonmotorist—unknown location (specify): \_\_\_\_\_

*Object or Animal*

- (87) Animal in roadway
- (88) Animal approaching roadway
- (89) Animal—unknown location
- (90) Object in roadway
- (91) Object approaching roadway
- (92) Object—unknown location
- (98) Other critical precrash event (specify): \_\_\_\_\_
- (99) Unknown

For Corrective Actions Attempted see variable GV14  
(Attempted Avoidance Manuever)

66. Precrash Stability After Avoidance Manuever 1

- (0) No avoidance manuever
- (1) Tracking
- (2) Skidding longitudinally—rotation less than 30 degrees
- (3) Skidding laterally—clockwise rotation
- (4) Skidding laterally—counterclockwise rotation
- (7) Other vehicle loss-of-control (specify): \_\_\_\_\_
- (8) No driver present
- (9) Precrash stability unknown

67. Precrash Directional Consequences of Avoidance Manuever (Corrective Action) 2

- (0) No avoidance manuever
- (1) Vehicle stayed in travel lane where avoidance manuever was initiated
- (2) Vehicle stayed on roadway but left travel lane where avoidance manuever was initiated
- (3) Vehicle stayed on roadway, not known if left travel lane where avoidance manuever was initiated
- (4) Vehicle departed roadway
- (5) Avoidance manuever initiated off roadway
- (8) No driver present
- (9) Directional consequences unknown

\*\*\* IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV35 = 0), \*\*\*  
DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS.

\*\*\* IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE \*\*\*  
THE EXTERIOR VEHICLE, INTERIOR VEHICLE,  
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.

**Appendix F:**

**NASS Occupant Forms: Case Vehicle Driver**



U.S. Department of Transportation  
National Highway Traffic Safety  
Administration

## OCCUPANT ASSESSMENT FORM

Form Approved  
O.M.B. No. 2127-0021

NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number 10  
2. Case Number - Stratum 9307  
3. Vehicle Number 01  
4. Occupant Number 01

### OCCUPANT'S CHARACTERISTICS

5. Occupant's Age 28  
Code actual age at time of accident.  
(00) Less than one year old (specify by month):  
  
(97) 97 years and older  
(99) Unknown  
  
6. Occupant's Sex 2  
(1) Male  
(2) Female  
(9) Unknown  
  
7. Occupant's Height 999  
Code actual height to the nearest  
centimeter.  
(999) Unknown  
  
\_\_\_\_\_ inches X 2.54 = \_\_\_\_\_ centimeters  
  
8. Occupant's Weight 999  
Code actual weight to the nearest  
kilogram.  
(999) Unknown  
  
\_\_\_\_\_ pounds X .4536 = \_\_\_\_\_ kilograms  
  
9. Occupant's Role 1  
(1) Driver  
(2) Passenger  
(9) Unknown

### OCCUPANT'S SEATING

10. Occupant's Seat Position 11  
*Front Seat*  
(11) Left side  
(12) Middle  
(13) Right side  
(14) Other (specify): \_\_\_\_\_  
(15) On or in the lap of another occupant  
  
*Second Seat*  
(21) Left side  
(22) Middle  
(23) Right side  
(24) Other (specify): \_\_\_\_\_  
(25) On or in the lap of another occupant  
  
*Third Seat*  
(31) Left side  
(32) Middle  
(33) Right side  
(34) Other (specify): \_\_\_\_\_  
(35) On or in the lap of another occupant  
  
*Fourth Seat*  
(41) Left side  
(42) Middle  
(43) Right side  
(44) Other (specify): \_\_\_\_\_  
(45) On or in the lap of another occupant  
  
(97) In or on unenclosed area  
(98) Other seat (specify): \_\_\_\_\_  
(99) Unknown  
  
11. Occupant's Posture 9  
(0) Normal posture  
  
*Abnormal posture*  
(1) Kneeling or standing on seat  
(2) Lying on or across seat  
(3) Kneeling, standing or sitting in front of seat  
(4) Sitting sideways or turned to talk with another  
occupant or to look out a rear window  
(5) Sitting on a console  
(6) Lying back in a reclined seat position  
(7) Bracing with feet or hands on a surface in front  
of seat  
(8) Other abnormal posture (specify): \_\_\_\_\_  
(9) Unknown

## EJECTION/ENTRAPMENT

## 12. Ejection

1

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

15. Medium Status (Immediately Prior To Impact) 2

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

## 13. Ejection Area

6

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)  
(specify): \_\_\_\_\_
- (9) Unknown

## 16. Entrapment

0

(NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)

- (0) Not entrapped
- (1) Entrapped
- (9) Unknown

## 14. Ejection Medium

3

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): \_\_\_\_\_
- (5) Integral structure
- (8) Other medium (specify): \_\_\_\_\_
- (9) Unknown

## RESTRAINT SYSTEM EVALUATION

17. Manual (Active) Belt System Availability 4

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown

*Integral Belt Partially Destroyed*

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)

(8) Other belt (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

18. Manual (Active) Belt System Use 00

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify): \_\_\_\_\_

(02) Shoulder belt \_\_\_\_\_

(03) Lap belt \_\_\_\_\_

(04) Lap and shoulder belt \_\_\_\_\_

(05) Belt used—type unknown \_\_\_\_\_

(08) Other belt used (specify): \_\_\_\_\_

(12) Shoulder belt used with child safety seat \_\_\_\_\_

(13) Lap belt used with child safety seat \_\_\_\_\_

(14) Lap and shoulder belt used with child safety seat \_\_\_\_\_

(15) Belt used with child safety seat—type unknown \_\_\_\_\_

(18) Other belt used with child safety seat (specify): \_\_\_\_\_

(99) Unknown if belt used \_\_\_\_\_

19. Proper Use of Manual (Active) Belts 0

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

*Belt Used Improperly*

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): \_\_\_\_\_

(8) Other improper use of manual belt system (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

20. Manual (Active) Belt Failure Modes During Accident 0

- (0) No manual belt used
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): \_\_\_\_\_

(6) Broken retractor \_\_\_\_\_

(7) Combination of above (specify): \_\_\_\_\_

(8) Other manual belt failure (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

21. Air Bag System Availability/Function 1

- (0) Not equipped/not available
- (1) Air bag

*Non-functional*

(2) Air bag disconnected (specify): \_\_\_\_\_

(3) Air bag not reinstalled \_\_\_\_\_

(9) Unknown \_\_\_\_\_

22. Air Bag System Deployment 4

- (0) Not equipped/not available
- (1) Air bag deployed during accident (as a result of impact)
- (2) Air bag deployed inadvertently just prior to accident
- (3) Air bag deployed, accident sequence undetermined
- (4) Nondeployed
- (5) Unknown if deployed
- (6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
- (9) Unknown

23. Are There Indications of Air Bag System Failure? 1

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

Note: See Variables 44 through 48 (Page 5) for information on Automatic Belts

24. Police Reported Restraint Use 0

- (0) None used
- (1) Police did not indicate restraint use
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt used, type not specified
- (6) Child safety seat
- (7) Other or automatic restraint (specify): \_\_\_\_\_

(8) Restrained, type unknown \_\_\_\_\_

(9) Police indicated "unknown" \_\_\_\_\_

## HEAD RESTRAINT AND SEAT EVALUATION

\* 25. Head Restraint Type/Damage by Occupant at This Occupant Position 9

- (0) No head restraints
- (1) Integral—no damage
- (2) Integral—damaged during accident
- (3) Adjustable—no damage
- (4) Adjustable—damaged during accident
- (5) Add-on—no damage
- (6) Add-on—damaged during accident
- (8) Other (specify): \_\_\_\_\_

(9) Unknown

26. Seat Type (this Occupant Position) 9 9

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Other seat type (specify): \_\_\_\_\_

(10) Box mounted seat (i.e., van type)

(99) Unknown

27. Seat Performance (this Occupant Position) 9

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed
- (4) Seat track/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): \_\_\_\_\_

(7) Combination of above (specify): \_\_\_\_\_

(8) Other (specify): \_\_\_\_\_

(9) Unknown

\* DRIVER'S SEAT HAD BEEN REMOVED BY POLICE FOR FORENSIC ANALYSIS.



## CHILD SAFETY SEAT

28. Child Safety Seat Make/Model 0 0 0  
 (000) No child safety seat

Applicable codes are found in your NASS CDS  
 Data Collection, Coding and Editing  
 (950) Built-in child safety seat  
 (997) Other make/model (specify):

(998) Unknown make/model  
 (999) Unknown if child safety seat used

29. Type of Child Safety Seat 0

(0) No child safety seat  
 (1) Infant seat  
 (2) Toddler seat  
 (3) Convertible seat  
 (4) Booster seat  
 (7) Other type child safety seat (specify):

(8) Unknown child safety seat type  
 (9) Unknown if child safety seat used

30. Child Safety Seat Orientation 0 0  
 (00) No child safety seat

*Designed for Rear Facing for This Age/Weight*

(01) Rear facing  
 (02) Forward facing  
 (08) Other orientation (specify):

(09) Unknown orientation

*Designed For Forward Facing for This Age/Weight*

(11) Rear facing  
 (12) Forward facing  
 (18) Other orientation (specify):

(19) Unknown orientation

*Unknown Design or Orientation For This  
 Age/Weight, or Unknown Age/Weight*

(21) Rear facing  
 (22) Forward facing  
 (28) Other orientation (specify):

(29) Unknown orientation

(99) Unknown if child safety seat used

31. Child Safety Seat Harness Usage 0 0

32. Child Safety Seat Shield Usage 0 0

33. Child Safety Seat Tether Usage 0 0

Note: Options below applicable to  
 Variables OA31-OA33.

(00) No child safety seat

*Not Designed With Harness/Shield/Tether*

(01) After market harness/shield/tether  
 added, not used  
 (02) After market harness/shield/tether used  
 (03) Child safety seat used, but no after market  
 harness/shield/tether added  
 (09) Unknown if harness/shield/tether  
 added or used

*Designed With Harness/Shield/Tether*

(11) Harness/shield/tether not used  
 (12) Harness/shield/tether used  
 (19) Unknown if harness/shield/tether used

*Unknown If Designed With Harness/Shield/Tether*

(21) Harness/shield/tether not used  
 (22) Harness/shield/tether used  
 (29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

**INJURY CONSEQUENCES****34. Injury Severity (Police Rating)** 4

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

**35. Treatment - Mortality** 1

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):

*Nonfatal*

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (8) Treatment - other (specify):
- (9) Unknown

**36. Type Of Medical Facility (for Initial Treatment)** 0

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):
- (9) Unknown

**37. Hospital Stay** 00

- (00) Not Hospitalized
- Code the number of days (up through 60) that the occupant stayed in hospital.
- (61) 61 days or more
- (99) Unknown

**38. Working Days Lost** 62

- Code the number of days (up through 60) that the occupant lost from work due to the accident
- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

**STOP - GO TO VARIABLE 44 ON PAGE 7****VARIABLES 39 THROUGH 43 ARE COMPLETED BY THE ZONE CENTER****39. Time to Death** 01

- Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)
- (00) Not fatal
- (96) Fatal - ruled disease
- (99) Unknown

**40. 1st Medically Reported Cause of Death** 96**41. 2nd Medically Reported Cause of Death** 01**42. 3rd Medically Reported Cause of Death** 00

- Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death
- (00) Not fatal or no additional causes
- (97) Other result (includes fatal ruled disease) (specify):

(99) Unknown

**43. Number of Recorded Injuries for This Occupant** 07

- Code the actual number of injuries recorded for this occupant.
- (00) No recorded injuries
- (97) Injured, details unknown
- (99) Unknown if injured

**AUTOMATIC BELT SYSTEM****44. Automatic (Passive) Belt System Availability/Function** 0

- (0) Not equipped/not available  
 (1) 2 point automatic belts  
 (2) 3 point automatic belts  
 (3) Automatic belts - type unknown

**Non-functional**

- (4) Automatic belts destroyed or rendered inoperative  
 (9) Unknown

**45. Automatic (Passive) Belt System Use** 0

- (0) Not equipped/not available/destroyed or rendered inoperative  
 (1) Automatic belt in use  
 (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify): \_\_\_\_\_  
 (3) Automatic belt use unknown  
 (9) Unknown

**46. Automatic (Passive) Belt System Type** 0

- (0) Not equipped/not available  
 (1) Non-motorized system  
 (2) Motorized system  
 (9) Unknown

**47. Proper Use of Automatic (Passive) Belt System** 0

- (0) Not equipped/not available/not used  
 (1) Automatic belt used properly  
 (2) Automatic belt used properly with child safety seat
- Automatic Belt Used Improperly**
- (3) Automatic shoulder belt worn under arm  
 (4) Automatic shoulder belt worn behind back  
 (5) Automatic belt worn around more than one person  
 (6) Lap portion of automatic belt worn on abdomen  
 (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): \_\_\_\_\_  
 (8) Other improper use of automatic belt system (specify): \_\_\_\_\_  
 (9) Unknown

**48. Automatic (Passive) Belt Failure Modes During Accident** 0

- (0) Not equipped/not available/not in use  
 (1) No automatic belt failure(s)  
 (2) Torn webbing (stretched webbing not included)  
 (3) Broken buckle or latchplate  
 (4) Upper anchorage separated  
 (5) Other anchorage separated (specify): \_\_\_\_\_  
 (6) Broken retractor  
 (7) Combination of above (specify): \_\_\_\_\_  
 (8) Other automatic belt failure (specify): \_\_\_\_\_  
 (9) Unknown

**49. Seat Orientation (this Occupant Position)** 1

- (0) Occupant not seated or no seat  
 (1) Forward facing seat  
 (2) Rear facing seat  
 (3) Side facing seat (inward)  
 (4) Side facing seat (outward)  
 (8) Other (specify): \_\_\_\_\_  
 (9) Unknown

**STOP - VARIABLES 50 THROUGH 52 ARE COMPLETED BY THE ZONE CENTER**

**TRAUMA DATA****50. Glasgow Coma Scale (GCS) Score** 0 1  
(at Medical Facility)

- (00) Not injured  
 (01) Injured - not treated at medical facility  
 (02) No GCS Score at medical facility  
 (03-15) Code the actual value of the initial GCS Score recorded at medical facility.  
 (97) Injured, details unknown  
 (99) Unknown if injured

**51. Was the Occupant Given Blood?** 1

- (1) No - blood not given  
 (2) Yes - blood given (specify units): \_\_\_\_\_  
 (9) Unknown if blood given

**52. Arterial Blood Gases (ABG) - HCO<sub>3</sub>** 0 1

- (00) Not injured  
 (01) Injured, ABGs not measured or reported  
 (02-50) Code the actual value of the HCO<sub>3</sub>  
 (96) ABGs reported, HCO<sub>3</sub> unknown  
 (97) Injured, details unknown  
 (99) Unknown if injured

ARE ALL APPLICABLE MEDICAL RECORDS INCLUDED  
 WITH INITIAL SUBMISSION?

NO [ ] YES [✓]

UPDATE CANDIDATE?

NO [✓] YES [ ]



U.S. Department of Transportation  
National Highway Traffic Safety  
Administration

## OCCUPANT INJURY FORM

Form Approved  
O.M.B. No. 2127-0021  
NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number	<u>10</u>	3. Vehicle Number	<u>01</u>
2. Case Number - Stratum	<u>9307</u>	4. Occupant Number	<u>01</u>

### INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

	Source of Injury Data	O.I.C.-A.I.S.						Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number
		Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect				
1st	5. <u>3</u>	6. <u>4</u>	7. <u>5</u>	8. <u>02</u>	9. <u>52</u>	10. <u>4</u>	11. <u>2</u>	12. <u>62</u>	13. <u>2</u>	14. <u>1</u>	15. <u>00</u>
2nd	16. <u>5</u>	17. <u>2</u>	18. <u>9</u>	19. <u>02</u>	20. <u>02</u>	21. <u>1</u>	22. <u>9</u>	23. <u>60</u>	24. <u>2</u>	25. <u>1</u>	26. <u>00</u>
3rd	27. <u>5</u>	28. <u>2</u>	29. <u>9</u>	30. <u>06</u>	31. <u>02</u>	32. <u>1</u>	33. <u>9</u>	34. <u>60</u>	35. <u>2</u>	36. <u>1</u>	37. <u>00</u>
4th	38. <u>5</u>	39. <u>4</u>	40. <u>9</u>	41. <u>02</u>	42. <u>02</u>	43. <u>1</u>	44. <u>9</u>	45. <u>60</u>	46. <u>2</u>	47. <u>1</u>	48. <u>00</u>
5th	49. <u>5</u>	50. <u>4</u>	51. <u>9</u>	52. <u>06</u>	53. <u>02</u>	54. <u>1</u>	55. <u>9</u>	56. <u>60</u>	57. <u>2</u>	58. <u>1</u>	59. <u>00</u>
6th	60. <u>5</u>	61. <u>5</u>	62. <u>9</u>	63. <u>02</u>	64. <u>02</u>	65. <u>1</u>	66. <u>9</u>	67. <u>60</u>	68. <u>2</u>	69. <u>1</u>	70. <u>00</u>
7th	71. <u>5</u>	72. <u>5</u>	73. <u>9</u>	74. <u>06</u>	75. <u>02</u>	76. <u>1</u>	77. <u>9</u>	78. <u>60</u>	79. <u>2</u>	80. <u>1</u>	81. <u>00</u>
8th	82. <u>  </u>	83. <u>  </u>	84. <u>  </u>	85. <u>  </u>	86. <u>  </u>	87. <u>  </u>	88. <u>  </u>	89. <u>  </u>	90. <u>  </u>	91. <u>  </u>	92. <u>  </u>
9th	93. <u>  </u>	94. <u>  </u>	95. <u>  </u>	96. <u>  </u>	97. <u>  </u>	98. <u>  </u>	99. <u>  </u>	100. <u>  </u>	101. <u>  </u>	102. <u>  </u>	103. <u>  </u>
10th	104. <u>  </u>	105. <u>  </u>	106. <u>  </u>	107. <u>  </u>	108. <u>  </u>	109. <u>  </u>	110. <u>  </u>	111. <u>  </u>	112. <u>  </u>	113. <u>  </u>	114. <u>  </u>

## OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

CR = Coroner's Report: signature — Registered Pharmacist [RPh]

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

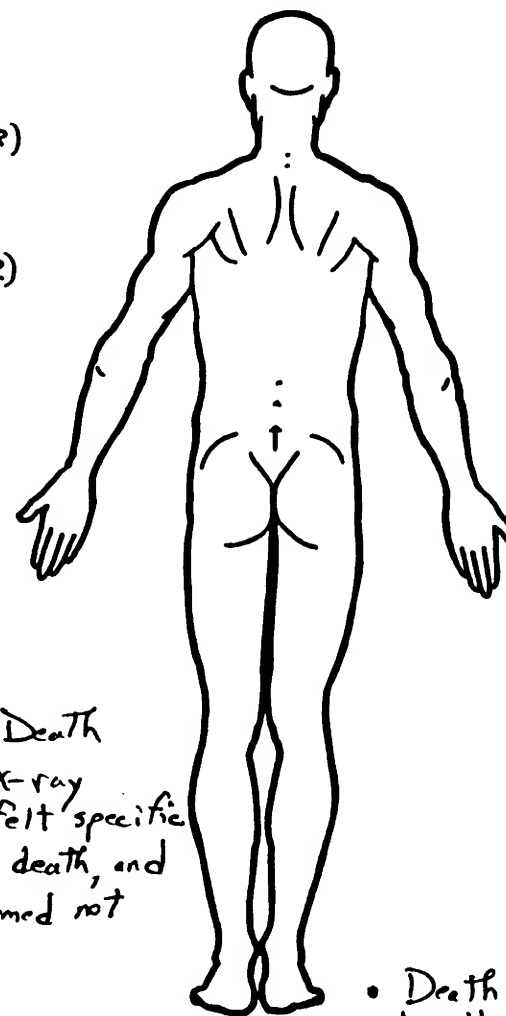
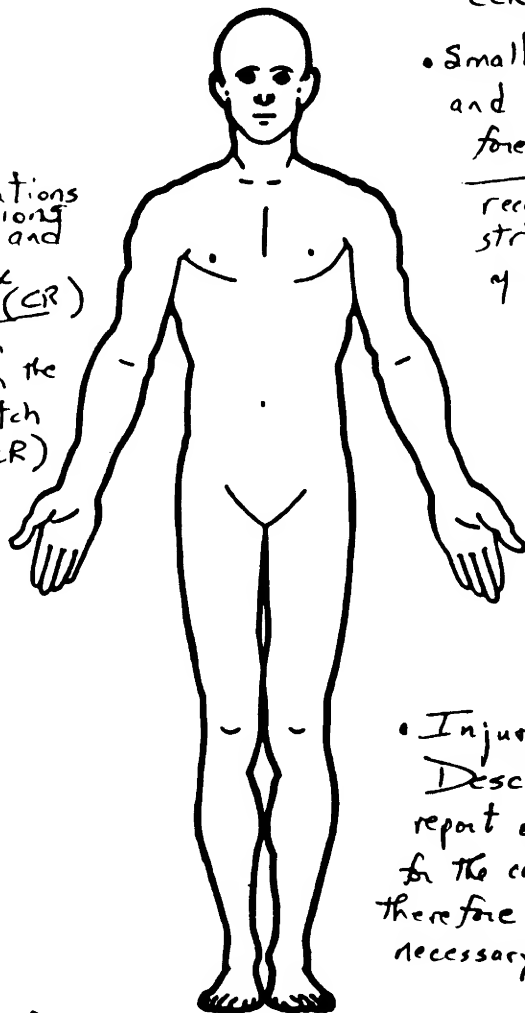
- Injuries resulting in this victim's death were due to massive blunt trauma to the Thorax, (CCR)

- Small lacerations and abrasions to forehead and face (CCR)

received likely, when striking upper center of dash of vehicle (CCR)

- Small lacerations and abrasions on abdomen and (lower) thorax (CCR)

received when thrust through the rear glass hatch (CCR)



- Injury and Cause of Death  
Description: The X-ray report of findings were felt specific for the cause of the victim's death, and therefore an autopsy was deemed not necessary (CCR)

- Quantity of Blood loss is sufficient to cause cardio-pulmonary arrest from lack of volume (exsanguination). (CCR)

- Death from the described lacerated major vessel would be rapid — no longer than a few minutes (CCR)

## OFFICIAL INJURY DATA — SKELETAL INJURIES

Restrained?

☒ No☐ YesBlood Alcohol  
Level (mg/dl)BAL = 245Glasgow Coma  
Scale Score

GCSS = \_\_\_\_

Units of Blood  
Given

Units = \_\_\_\_

Dead @ scene

Arterial Blood  
Gases

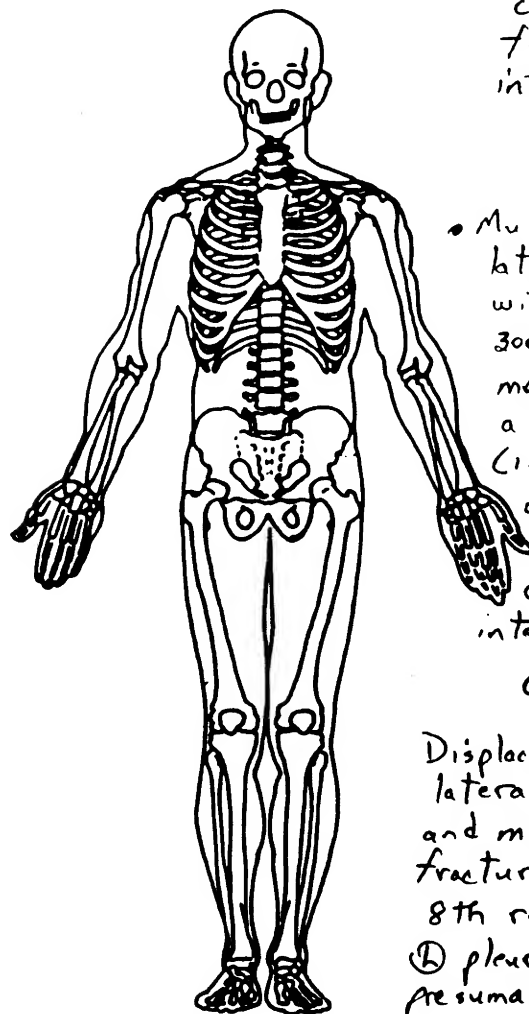
pH = \_\_\_\_

PO<sub>2</sub> = \_\_\_\_PCO<sub>2</sub> = \_\_\_\_HCO<sub>3</sub> = \_\_\_\_

The victim was not restrained by belts, and the air bag the vehicle was equipped with, failed to function (CR)  
Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

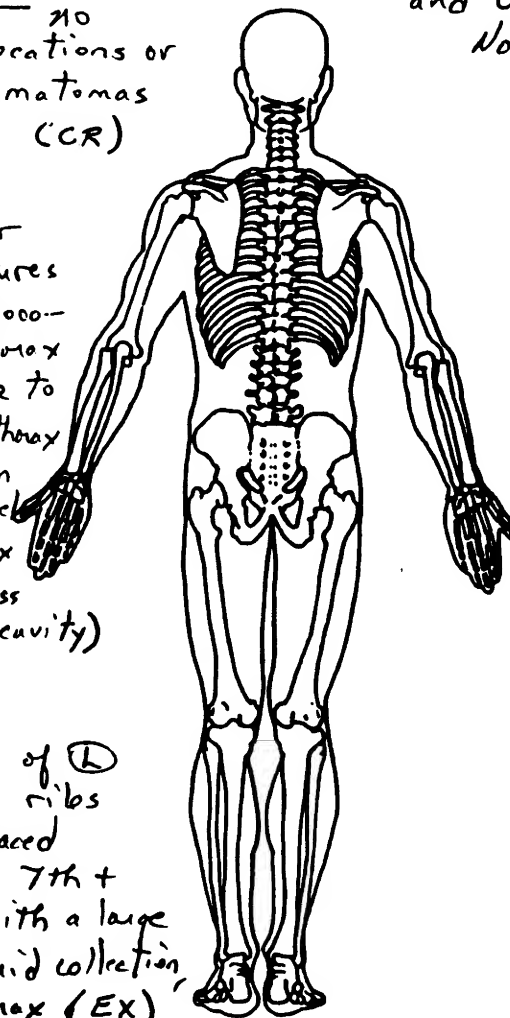
• X-ray: skull and cervical spine — no fractures, dislocations or intracranial hematomas (CR)

• X-ray: skull and C-spine: Normal (EX)



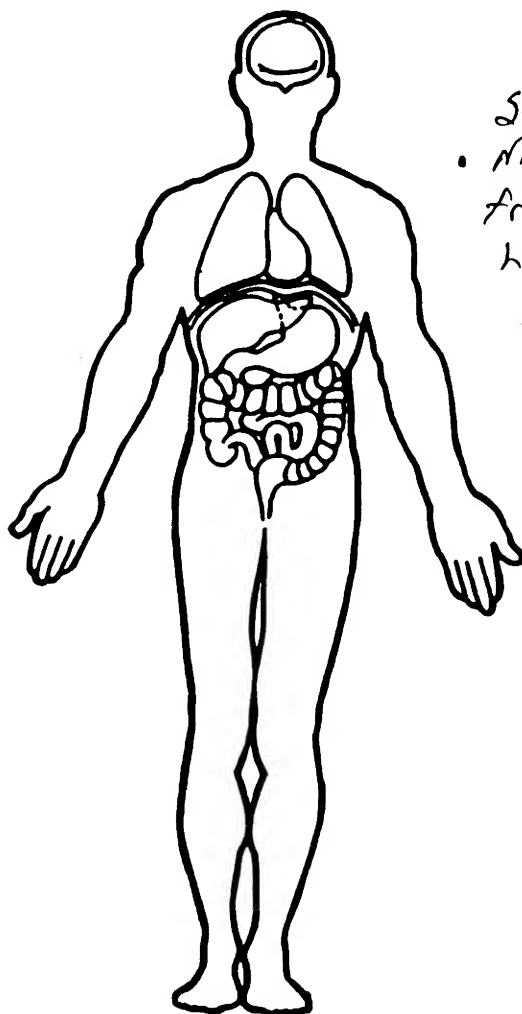
• Multiple ② lower lateral rib fractures with a large (2000-3000 cc) hemothorax most likely due to a tension hemothorax (i.e., a laceration of a major vessel within the thorax causing blood loss into the pleural cavity) (CR)

Displaced fractures of ② lateral 9th + 10th ribs and minimally displaced fractures of lateral 7th + 8th ribs on ② with a large ② pleural cavity fluid collection, presumably hemothorax (EX)

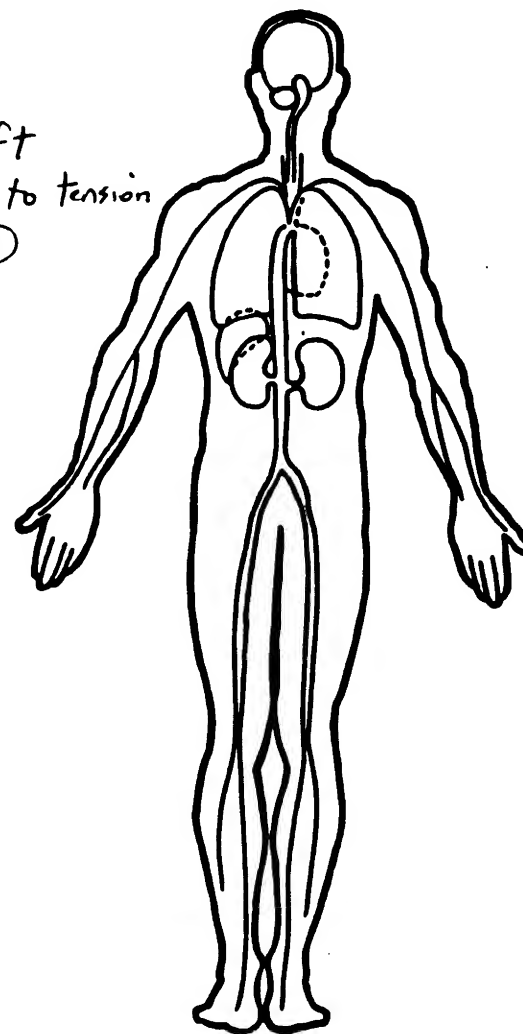


## OFFICIAL INJURY DATA — INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



Significant  
• Mediastinal shift  
from ① to ② due to tension  
hemothorax on ②  
(CR, EX)



**CORONER'S OFFICE\*\*PRELIMINARY REPORT FORM**

WHO CALLED \_\_\_\_\_ DATE \_\_\_\_/\_\_\_\_/\_\_\_\_ TIME \_\_\_\_

NAME OF DECEASED \_\_\_\_\_ SS# \_\_\_\_\_  
 STREET \_\_\_\_\_ CITY \_\_\_\_\_ STATE IL ZIP \_\_\_\_\_  
 AGE 28 DOB \_\_\_\_\_ MARITAL STATUS MARRIED RACE WHITE  
 PHONE \_\_\_\_/\_\_\_\_/\_\_\_\_ OCCUPATION HOMEMAKER INDUSTRY \_\_\_\_\_  
 CASE NUMBER \_\_\_\_\_  
 NEXT OF KIN \_\_\_\_\_ RELATIONSHIP \_\_\_\_\_  
 STREET \_\_\_\_\_ CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_  
 PHONE \_\_\_\_/\_\_\_\_/\_\_\_\_

ONSET OF CAUSE OF DEATH OR FINDING OF BODY DATE \_\_\_\_/\_\_\_\_/\_\_\_\_ TIME \_\_\_\_  
 PLACE \_\_\_\_\_ FOUND BY: \_\_\_\_\_  
 PRONOUNCED. BY WHO \_\_\_\_\_  
 WHERE \_\_\_\_\_  
 DATE \_\_\_\_/\_\_\_\_/\_\_\_\_ TIME \_\_\_\_ BODY MOVED? \_\_\_\_\_ WHERE, WHY? \_\_\_\_\_

MODE OF DEATH: NATURAL, ACCIDENTAL, SUICIDAL, HOMICIDAL, OR UNKNOWN

CAUSE OF DEATH: A) \_\_\_\_\_  
 B) \_\_\_\_\_  
 C) \_\_\_\_\_

OTHER CONTRIBUTING: \_\_\_\_\_  
 FUNERAL HOME \_\_\_\_\_ REQUESTOR \_\_\_\_\_  
 AUTOPSY BY: \_\_\_\_\_ WHERE \_\_\_\_\_  
 X-RAYS \_\_\_\_\_ WHERE \_\_\_\_\_ TOXICOLOGY \_\_\_\_\_

POLICE AND SUPPORT PERSONNEL \_\_\_\_\_

WITNESS	ADDRESS	PHONE

BRIEF SUMMARY OF CIRCUMSTANCE: INJURY AND CAUSE OF DEATH DESCRIPTION:

THE X-RAY REPORT OF FINDINGS WERE FELT SPECIFIC FOR THE CAUSE OF THE  
 VICTIM'S DEATH, AND THEREFORE AN AUTOPSY WAS DEEMED NOT NECESSARY.

THE VIEWS OF THE SKULL AND CERVICAL SPINE FAILED TO REVEAL ANY FRACTURES,  
 DISLOCATIONS OR INTERCRANIAL HEMATOMAS.

THE CHEST VIEWS REVEAL MULTIPLE LEFT LOWER LATERAL RIB FRACTURES, WITH  
 A LARGE LEFT HEMOTHORAX. I WAS PRESENT WHEN \_\_\_\_\_ INTERPRETTED  
 THE X-RAYS, AND HE STATED THAT THE FLUID VOLUME REPRESENTED BETWEEN 2,000  
 AND 3,000 CC IN VOLUME. THIS QUANTITY OF BLOOD LOSS IS SUFFICIENT TO  
 CAUSE CARDIO-PULMONARY ARREST FROM LACK OF VOLUME (EXSANGUINATION).

THE X-RAY INTERPRETATION BY \_\_\_\_\_ ALSO STATES THAT THE LARGE  
 FLUID COLLECTION (BLOOD LOSS) WITHIN THE PLEURAL CAVITY WAS MOST LIKELY  
 DUE TO A TENSION HEMOTHORAX. THIS IS INTERPRETTED AS A LACERATION OF A  
 MAJOR VESSEL WITHIN THE THORAX CAUSING THE BLOOD LOSS INTO THE PLEURAL  
 CAVITY. THE X-RAY REPORT FURTHER DESCRIBES THE FLUID ACCUMULATION AS  
 LARGE ENOUGH TO CAUSE A SHIFT IN THE MEDIASTINUM (THE HEART AND ITS'  
 RELATED VESSEL AND TISSUE STRUCTURES) FROM LEFT TO RIGHT.

CONTINUED ON PAGE 3

SEE PAGE 2 FOR MORE REPORT IF NEEDED. ALSO REFERENCE ALL OTHER REPORTS

SIGNED \_\_\_\_\_ DATE \_\_\_\_/\_\_\_\_/93



PAGE 3 OF 3

CASE NAME: [REDACTED]

CASE NUMBER: [REDACTED] DATE 4/7/93

THE INJURIES RESULTING IN THIS VICTIM'S DEATH WERE DUE TO MASSIVE BLUNT TRAUMA TO THE THORAX--MOST LIKELY FROM THE STEERING WHEEL OF THE VEHICLE. THE VICTIM WAS NOT RESTRAINED BY BELTS, AND THE AIR-BAG THE VEHICLE WAS EQUIPPED WITH, FAILED TO FUNCTION.

OTHER INJURIES THE VICTIM RECEIVED WERE INCIDENTAL TO HER CAUSE OF DEATH, BUT INCLUDED SMALL LACERATIONS AND ABRASIONS TO HER FOREHEAD AND FACE AND ON HER ABDOMEN AND LOWER THORAX. IT IS LIKELY THAT THE FACIAL AND FOREHEAD TRAUMA WAS RECEIVED WHEN STRIKING THE UPPER CENTER OF THE DASH OF THE VEHICLE, AND THE ABDOMINAL AND UPPER THORAX ABRASIONS AND SMALL LACERATIONS RECEIVED WHEN BEING THRUST FROM THE VEHICLE THROUGH THE REAR GLASS HATCH OF THE VEHICLE.

DEATH FROM THE DESCRIBED LACERATED MAJOR VESSEL WOULD BE RAPID--NO LONGER THAN A FEW MINUTES.

\*\*SEE ATTACHED COPY OF X-RAY REPORT.

[REDACTED] *RFH*  
*Carroll*

## FORENSIC TOXICOLOGY LABORATORY

M.D. Director of Laboratories

## COMPREHENSIVE DRUG SCREEN REPORT

Name: [REDACTED]  
 Age: 28  
 Accession #: [REDACTED]  
 Coroner: [REDACTED] Coroner  
 Pathologist:  
 Date of Report: [REDACTED] 93  
 Specimen Received Date: [REDACTED] 93  
 Date of specimen collection: [REDACTED] 93  
 Specimen Type: Blood / Urine

The following drugs were identified in the submitted specimens:

EPHEDRINE / PSEUDOEPHEDRINE

ANTIPYRINE

NICOTINE and METABOLITE

*Ephedrine, Pseudoephedrine & Antipyrine (metabolite of Acetaminophen),  
 Are Ingredients Found In Over the Counter Sinus Allergy Medication.  
 Example: "Sudafed-Sinus" = Pseudoephedrine and Acetaminophen (Tylenol).  
 Nicotine Is Present - Victim Was Known a Cigarette Smoker.  
 See second page for a list of drugs screened for and their detection limits*

## Comments:

Whole Blood Ethanol = 245 mg/dl

Urine Ethanol = 263 mg/dl

*Blood Ethanol of 245 mg/dl  
 (milligrams per Decaliter) in terms of standards used by  
 the State of Illinois For Intoxication is 0.245. This is approximately  
 2½ times the State Standard of 0.1 For Legal Intoxication. It would  
 take a consumption of approximately 10 Beers or 10 ounces of 100 proof  
 alcohol over a 3 Hour Period Prior To Death  
 To Reach this Level.*

Signed [REDACTED]

PhD.

*Urine Ethanol of 263 mg/dl indicates that an equilibrium for excretion  
 of the alcohol consumed had not yet been reached and that consumption  
 continued until near the time of the fatality. If equilibrium had  
 been reached (excretion at same rate as consumption) the Urine Alcohol  
 Level would approximate 318 mg/dl at a 245 mg/dl Blood Alcohol Level.*

## ROENTGENOLOGICAL CONSULTATION REPORT

[REDACTED] (28)				DATE	TIME	PRIORITY	DATE	ORDER NO.
				METHOD				
AGE	SEX	HEIGHT	WEIGHT	EXAMINATION  C-SPINE 2 VIEWS SKULL 2 VIEWS CHEST 1 VIEW				
PHYSICIAN'S  CORONER								
DIAGNOSIS								
DATE OF EXAM	DATE OF REPORT	MADE OUT BY	CODE	X-RAY NO.				
[REDACTED] -93		[REDACTED]		[REDACTED]				

## RADIOLOGICAL FINDING

[REDACTED] -93

SKULL

AP AND LATERAL

Symmetrical bony calvarium without fracture or abnormal erosion. No pineal calcification. No abnormal intracranial calcification. Sella and skull base are normal.

OPINION: 1. NORMAL SKULL.

CERVICAL SPINE

AP and lateral.

Vertebrae are well aligned without fracture, dislocation or prevertebral soft tissue swelling. No degenerative change or destructive process.

OPINION: 1. NORMAL CERVICAL SPINE.

CHEST

AP SUPINE

Displaced fractures of the lateral 9th and 10th ribs and minimally displaced fractures of the lateral 7th and 8th ribs. There is a significant left to right displacement of the mediastinal structures by a large fluid collection in the left pleural cavity most likely representing a tension hemothorax. Heart size is difficult to evaluate but is probably not enlarged. NO definite vascular congestion.

OPINION: 1. MULTIPLE LEFT LOWER LATERAL RIB FRACTURES WITH A LARGE LEFT PLEURAL CAVITY FLUID COLLECTION, PRESUMABLY HEMOTHORAX WITH A CONSIDERABLE LEFT TO RIGHT SHIFT OF THE MEDIASTINUM.

[REDACTED] M.D.

[REDACTED] 1993

ORIGINAL - CHART

GREEN - PHYSICIAN

RADIOLOGIST

FILE COPY

BLUE - CONSULTING PHYSICIAN

**Appendix G:**

NASS Occupant Forms: Vehicle #2 Driver



U.S. Department of Transportation  
National Highway Traffic Safety  
Administration

## OCCUPANT ASSESSMENT FORM

Form Approved  
O.M.B. No. 2127-0021

NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

OCCUPANT'S SEATING	
1. Primary Sampling Unit Number <u>10</u>	10. Occupant's Seat Position <u>11</u>
2. Case Number - Stratum <u>9307</u>	<i>Front Seat</i>
3. Vehicle Number <u>02</u>	(11) Left side
4. Occupant Number <u>01</u>	(12) Middle
(13) Right side	
(14) Other (specify): _____	
(15) On or in the lap of another occupant	
<i>Second Seat</i>	
(21) Left side	
(22) Middle	
(23) Right side	
(24) Other (specify): _____	
(25) On or in the lap of another occupant	
<i>Third Seat</i>	
(31) Left side	
(32) Middle	
(33) Right side	
(34) Other (specify): _____	
(35) On or in the lap of another occupant	
<i>Fourth Seat</i>	
(41) Left side	
(42) Middle	
(43) Right side	
(44) Other (specify): _____	
(45) On or in the lap of another occupant	
(97) In or on unenclosed area	
(98) Other seat (specify): _____	
(99) Unknown	
11. Occupant's Posture <u>9</u>	
(0) Normal posture	
<i>Abnormal posture</i>	
(1) Kneeling or standing on seat	
(2) Lying on or across seat	
(3) Kneeling, standing or sitting in front of seat	
(4) Sitting sideways or turned to talk with another occupant or to look out a rear window	
(5) Sitting on a console	
(6) Lying back in a reclined seat position	
(7) Bracing with feet or hands on a surface in front of seat	
(8) Other abnormal posture (specify): _____	
(9) Unknown	

OCCUPANT'S CHARACTERISTICS	
5. Occupant's Age <u>33</u>	
Code actual age at time of accident.	
(00) Less than one year old (specify by month): _____	
(97) 97 years and older	
(99) Unknown	
6. Occupant's Sex <u>1</u>	
(1) Male	
(2) Female	
(9) Unknown	
7. Occupant's Height <u>999</u>	
Code actual height to the nearest centimeter.	
(999) Unknown	
_____ inches X 2.54 = _____ centimeters	
8. Occupant's Weight <u>999</u>	
Code actual weight to the nearest kilogram.	
(999) Unknown	
_____ pounds X .4536 = _____ kilograms	
9. Occupant's Role <u>1</u>	
(1) Driver	
(2) Passenger	
(9) Unknown	

## EJECTION/ENTRAPMENT

## 12. Ejection

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

9

## 13. Ejection Area

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)  
(specify): \_\_\_\_\_
- (9) Unknown

9

## 14. Ejection Medium

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): \_\_\_\_\_
- (5) Integral structure
- (8) Other medium (specify): \_\_\_\_\_
- (9) Unknown

9

## 15. Medium Status (Immediately Prior To Impact)

9

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

## 16. Entrapment

9

(NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)

- (0) Not entrapped
- (1) Entrapped
- (9) Unknown

## RESTRAINT SYSTEM EVALUATION

17. Manual (Active) Belt System Availability 9

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown

*Integral Belt Partially Destroyed*

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)

(8) Other belt (specify): \_\_\_\_\_

(9) Unknown

18. Manual (Active) Belt System Use 9 9

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify): \_\_\_\_\_

(02) Shoulder belt

(03) Lap belt

(04) Lap and shoulder belt

(05) Belt used—type unknown

(08) Other belt used (specify): \_\_\_\_\_

(12) Shoulder belt used with child safety seat

(13) Lap belt used with child safety seat

(14) Lap and shoulder belt used with child safety seat

(15) Belt used with child safety seat—type unknown

(18) Other belt used with child safety seat (specify): \_\_\_\_\_

(99) Unknown if belt used

19. Proper Use of Manual (Active) Belts 9

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

*Belt Used Improperly*

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): \_\_\_\_\_

(8) Other improper use of manual belt system (specify): \_\_\_\_\_

(9) Unknown

20. Manual (Active) Belt Failure Modes During Accident 9

- (0) No manual belt used
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): \_\_\_\_\_

(6) Broken retractor

(7) Combination of above (specify): \_\_\_\_\_

(8) Other manual belt failure (specify): \_\_\_\_\_

(9) Unknown

21. Air Bag System Availability/Function 0

- (0) Not equipped/not available
- (1) Air bag

*Non-functional*

(2) Air bag disconnected (specify): \_\_\_\_\_

(3) Air bag not reinstalled

(9) Unknown

22. Air Bag System Deployment 0

- (0) Not equipped/not available
- (1) Air bag deployed during accident (as a result of impact)
- (2) Air bag deployed inadvertently just prior to accident
- (3) Air bag deployed, accident sequence undetermined
- (4) Nondeployed
- (5) Unknown if deployed
- (6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
- (9) Unknown

23. Are There Indications of Air Bag System Failure? 0

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify): \_\_\_\_\_

(9) Unknown

Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts

24. Police Reported Restraint Use 9

- (0) None used
- (1) Police did not indicate restraint use
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt used, type not specified
- (6) Child safety seat
- (7) Other or automatic restraint (specify): \_\_\_\_\_

(8) Restrained, type unknown

(9) Police indicated "unknown"

## HEAD RESTRAINT AND SEAT EVALUATION

25. Head Restraint Type/Damage by Occupant  
at This Occupant Position7

- (0) No head restraints
- (1) Integral—no damage
- (2) Integral—damaged during accident
- (3) Adjustable—no damage
- (4) Adjustable—damaged during accident
- (5) Add-on—no damage
- (6) Add-on—damaged during accident
- (8) Other (specify):

(9) Unknown

## 26. Seat Type (this Occupant Position)

9 9

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Other seat type (specify):

- (10) Box mounted seat (i.e., van type)
- (99) Unknown

## 27. Seat Performance (this Occupant Position)

9

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed
- (4) Seat track/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify):

(7) Combination of above (specify):(8) Other (specify):(9) Unknown



## CHILD SAFETY SEAT

28. Child Safety Seat Make/Model 0 0 0

(000) No child safety seat

Applicable codes are found in your NASS CDS  
Data Collection, Coding and Editing

(950) Built-in child safety seat

(997) Other make/model (specify):  
\_\_\_\_\_

(998) Unknown make/model

(999) Unknown if child safety seat used

29. Type of Child Safety Seat 0

(0) No child safety seat

(1) Infant seat

(2) Toddler seat

(3) Convertible seat

(4) Booster seat

(7) Other type child safety seat (specify):  
\_\_\_\_\_

(8) Unknown child safety seat type

(9) Unknown if child safety seat used

30. Child Safety Seat Orientation 0 0

(00) No child safety seat

*Designed for Rear Facing for This Age/Weight*

(01) Rear facing

(02) Forward facing

(08) Other orientation (specify):  
\_\_\_\_\_

(09) Unknown orientation

*Designed For Forward Facing for This Age/Weight*

(11) Rear facing

(12) Forward facing

(18) Other orientation (specify):  
\_\_\_\_\_

(19) Unknown orientation

*Unknown Design or Orientation For This  
Age/Weight, or Unknown Age/Weight*

(21) Rear facing

(22) Forward facing

(28) Other orientation (specify):  
\_\_\_\_\_

(29) Unknown orientation

(99) Unknown if child safety seat used

31. Child Safety Seat Harness Usage 0 032. Child Safety Seat Shield Usage 0 033. Child Safety Seat Tether Usage 0 0Note: Options below applicable to  
Variables OA31-OA33.

(00) No child safety seat

*Not Designed With Harness/Shield/Tether*(01) After market harness/shield/tether  
added, not used

(02) After market harness/shield/tether used

(03) Child safety seat used, but no after market  
harness/shield/tether added(09) Unknown if harness/shield/tether  
added or used*Designed With Harness/Shield/Tether*

(11) Harness/shield/tether not used

(12) Harness/shield/tether used

(19) Unknown if harness/shield/tether used

*Unknown If Designed With Harness/Shield/Tether*

(21) Harness/shield/tether not used

(22) Harness/shield/tether used

(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

## INJURY CONSEQUENCES

## 34. Injury Severity (Police Rating)

3

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

## 35. Treatment - Mortality

3

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):  
\_\_\_\_\_

*Nonfatal*

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (8) Treatment - other (specify):  
\_\_\_\_\_
- (9) Unknown

## 36. Type Of Medical Facility (for Initial Treatment)

9

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):  
\_\_\_\_\_
- (9) Unknown

## 37. Hospital Stay

99

- (00) Not Hospitalized
- \_\_\_\_\_ Code the number of days (up through 60) that the occupant stayed in hospital.
- (61) 61 days or more
- (99) Unknown

## 38. Working Days Lost

99

- \_\_\_\_\_ Code the number of days (up through 60) that the occupant lost from work due to the accident
- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

**STOP - GO TO VARIABLE 44 ON PAGE 7****VARIABLES 39 THROUGH 43 ARE COMPLETED BY THE ZONE CENTER**

## 39. Time to Death

00

- \_\_\_\_\_ Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)
- (00) Not fatal
- (96) Fatal - ruled disease
- (99) Unknown

## 40. 1st Medically Reported Cause of Death

00

## 41. 2nd Medically Reported Cause of Death

00

## 42. 3rd Medically Reported Cause of Death

00

- \_\_\_\_\_ Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death
- (00) Not fatal or no additional causes
- (97) Other result (includes fatal ruled disease) (specify):  
\_\_\_\_\_

(99) Unknown

## 43. Number of Recorded Injuries for This Occupant

97

- \_\_\_\_\_ Code the actual number of injuries recorded for this occupant.
- (00) No recorded injuries
- (97) Injured, details unknown
- (99) Unknown if injured

**AUTOMATIC BELT SYSTEM****44. Automatic (Passive) Belt System Availability/ Function** 0

- (0) Not equipped/not available
- (1) 2 point automatic belts
- (2) 3 point automatic belts
- (3) Automatic belts - type unknown

**Non-functional**

- (4) Automatic belts destroyed or rendered inoperative
- (9) Unknown

**45. Automatic (Passive) Belt System Use** 0

- (0) Not equipped/not available/destroyed or rendered inoperative
- (1) Automatic belt in use
- (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify): \_\_\_\_\_

- (3) Automatic belt use unknown
- (9) Unknown

**46. Automatic (Passive) Belt System Type** 0

- (0) Not equipped/not available
- (1) Non-motorized system
- (2) Motorized system
- (9) Unknown

**47. Proper Use of Automatic (Passive) Belt System** 0

- (0) Not equipped/not available/not used
- (1) Automatic belt used properly
- (2) Automatic belt used properly with child safety seat

**Automatic Belt Used Improperly**

- (3) Automatic shoulder belt worn under arm
- (4) Automatic shoulder belt worn behind back
- (5) Automatic belt worn around more than one person
- (6) Lap portion of automatic belt worn on abdomen
- (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): \_\_\_\_\_

- (8) Other improper use of automatic belt system (specify): \_\_\_\_\_
- (9) Unknown

**48. Automatic (Passive) Belt Failure Modes During Accident** 0

- (0) Not equipped/not available/not in use
- (1) No automatic belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): \_\_\_\_\_

- (6) Broken retractor
- (7) Combination of above (specify): \_\_\_\_\_
- (8) Other automatic belt failure (specify): \_\_\_\_\_

- (9) Unknown

**49. Seat Orientation (this Occupant Position)** 9

- (0) Occupant not seated or no seat
- (1) Forward facing seat
- (2) Rear facing seat
- (3) Side facing seat (inward)
- (4) Side facing seat (outward)
- (8) Other (specify): \_\_\_\_\_

- (9) Unknown

**STOP - VARIABLES 50 THROUGH 52 ARE COMPLETED BY THE ZONE CENTER**

**TRAUMA DATA****50. Glasgow Coma Scale (GCS) Score** 97  
(at Medical Facility)

- (00) Not injured
- (01) Injured - not treated at medical facility
- (02) No GCS Score at medical facility
- (03-15) Code the actual value of the initial GCS Score recorded at medical facility.
- (97) Injured, details unknown
- (99) Unknown if injured

**51. Was the Occupant Given Blood?** 9

- (1) No - blood not given
- (2) Yes - blood given (specify units): \_\_\_\_\_
- (9) Unknown if blood given

**52. Arterial Blood Gases (ABG) - HCO<sub>3</sub>** 97

- (00) Not injured
- (01) Injured, ABGs not measured or reported
- (02-50) Code the actual value of the HCO<sub>3</sub>
- (96) ABGs reported, HCO<sub>3</sub> unknown
- (97) Injured, details unknown
- (99) Unknown if injured

ARE ALL APPLICABLE MEDICAL RECORDS INCLUDED WITH INITIAL SUBMISSION?

NO [✓] YES [ ]

UPDATE CANDIDATE?

NO [✓] YES [ ]